THE

HISTORY AND STATISTICS

OF

OVARIOTOMY,

AND THE

CIRCUMSTANCES UNDER WHICH THE OPERATION MAY BE REGARDED AS SAFE AND EXPEDIENT;

Being a Dissertation,

TO WHICH

THE PRIZE OF THE MASSACHUSETTS MEDICAL SOCIETY WAS AWARDED, MAY, 1856.

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"Hydrops ovariorum ut plurimum steriles annosasque mulieres occupat, difficulter cognoscitur et vix sine inciso cadavere."—BOERHAAVE, Aph. 1223.

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DISSERTATION.

In tracing the History of Ovariotomy, we find that extensive incisions into the abdominal parietes, similar to those employed in modern times for the removal of diseased ovaria, were known to the ancient Jews, who, according to Dr. Mansfeld, of Brunswick,[1] operated in this way for removal of the uterus; and the statement by Morand,[2] on the authority of Heyschius, that Gyges and Andramites, kings of Lydia, were in the practice of qualifying certain of their unfortunate female subjects for the duties of eunuchs, by removing or destroying their ovaries, is constantly repeated by more recent authors. This practice, it seems, is still continued in certain parts of India. Dr. Roberts says, "that, in 1841, he examined three female eunuchs, called Hedjera, in whom the atrophy of the ovaries was effected by puncturing them with needles, impregnated with some unripe vegetable juice."[3]

In more recent times, however, abdominal section for the removal of the uterus or its contents, for extra-uterine pregnancy, for intussusception, tumors, &c., appears to have been first revived in the sixteenth century. In "Sue's Histoires des Accouchements, Paris, 1786," is an account of successful

[1] Edin. Med. and Surg. Jour. vol. xxv. 1826.
[2] Mémoires de l'Acad. de Chirurg. t. ii. p. 319.
[3] Tilt, Dis. of Women, Lond. 1853, p. 27.

cases of extirpation of the uterus by Andreas à Cruce, of Venice, in 1650; by Carpus, in 1640; and by Zacutus Lusitanus, also early in the seventeenth century;[1] and Morand, above cited, says that this operation (extirpation of the ovaries) "n'a point paru une chimère à Felix Platerus et à Diemerbroeck." "Frankenau en avait vu une faite par hasard à la suite d'une plaie au ventre réussir."

In the early part of the eighteenth century, the subject was discussed by a great number of authors, — Morgagni, Payer, De Haen, Targioni, Lieutaud, &c.; and though a few isolated cases are reported, some if not all of them accidental, as herniæ, &c., it may with propriety be assumed, that, as an established operation, it dates no earlier than the commencement of the present century.

Boivin and Duges say that it was first recommended by Vanderhaar, but give no authority for the statement.

Morand[2] gives De la Porte the credit of having first dared to propose extirpation.

Dr. Tilt[3] says that Auguste Bérard was the first to perform the operation in France, at La Pitié; the patient dying in three days.

The earliest operative procedure for the cure of ovarian dropsy, of which I have been able to find any detailed account, is that of Dr. Houston, in 1701, mentioned hereafter (p. 11). L'Aumonier's case, published at the close of the last century, has usually been reckoned as the first successful one; and although Wierus's oft-repeated case of the gelder who operated upon his own daughter from suspicions of her chastity, the cases of Cyprianus[4] and M. Kapeler, and the cure of Madame de Choiseul, are said to be authentic by Velpeau[5] and others, the first operations for entire removal of

[1] Edin. Med. and Surg. Jour. 1825. [2] Loc. cit.

[3] Lancet, vol. ii. 1848, p. 420. [4] Morgagni, Epist. xxxviii. art. 69.

[5] Dict. de Méd. art. Ovaires. Velpeau also alludes to its having been performed by Laflise, Lemman, and Delpech; and in Revue Médicale, 1844, t. ii., he says that Huder practised this operation as early as 1722, and other surgeons in 1731, 1751, and 1752.

the diseased ovary, recorded with any detail, were, next to L'Aumonier's above mentioned, those of McDowell, of Kentucky, in 1809, and Mr. Lizars, of Edinburgh, in 1823; and, in these cases, the modern history of Ovariotomy may be considered to have originated.

These last cases gave rise to a most animated discussion, which has not yet ceased, and which has been pursued with so much of personal feeling as to render it difficult for the impartial inquirer to arrive at the truth, among so many contradictory statements of reported facts. It has been productive of good, however, by attracting the attention of unbiased observers to the subject of ovarian disease generally, and adding to our knowledge of its pathology and diagnosis. When we read of distinguished surgeons dividing the abdominal parietes to the extent of a foot or more, in search of ovarian disease which had no existence, — an error of which I shall give repeated instances, — it will be readily conceded that any addition to our means of diagnosis is worth all the discussion which has taken place.

Before we can decide upon the necessity of extirpation as a remedy for ovarian dropsy, it would seem to be necessary to review the other modes of treatment or operation which have been proposed and adopted. I shall first state these, giving such illustrative cases as I may have met with in my search for cases of Ovariotomy; and I trust that this plan will not be considered as a departure from our more immediate subject, inasmuch as all well-authenticated cases, whatever may have been the particular method of treatment employed, will give more or less information, having a direct bearing upon Ovariotomy itself, in relation to its necessity at all, the diagnosis, &c.

MEDICAL TREATMENT.

This has been of every variety, with the hope of either permanent cure, or an arrest of its progress, and prolonga-

tion of life. Emetics, purgatives, mercurials, tonics, leeches, fomentations, blisters, electricity, friction, percussion, pressure, have each and all had their advocates; but, to show the small amount of real permanent benefit which has resulted from them, it will be necessary only to state a few of the opinions of recognized authorities.

Dewees[1] says, that, unless in acute inflammation of the cyst, "no one instance with which we are acquainted would lead us to the conclusion that any remedy has removed a disordered condition of these parts. . . . They seem to be so far removed from the general sympathies of the system, so insulated in position, so independent in function, that the common agents for the control of disease seem to waste themselves in unavailing attempts to influence their actions. . . . Who flatters himself that he has removed a dropsy, resolved a schirrous, or interrupted a suppuration, in these bodies? We believe, if he be candid, none will declare he has."

Grisolle[2] says, "On a vainement employé contre cette maladie tous les moyens préconisés contre les hydropisies. . . . Témoin d'un grand nombre d'insuccés et bien convaincu de l'impuissance de l'art et des dangers de toutes les médications actives qui ont été conseillées, nous croyons que tout médecin prudent ne doit recourir qu' à un traitement palliatif."

Sir Astley Cooper[3] says, "Medicine has but little influence." He recommends pressure by a belt to retard its growth.

Lassus[4] says, "Cette maladie est absolument incurable."

Watson[5] says, "My position, as physician to a hospital, has brought under my notice several cases at an early period of development. . . . I have treated such cases assiduously with the remedies of chronic inflammation, frequent topical bleedings, and the use of mercury until the gums were affected, with the remedies of ordinary dropsy diuretics and

[1] On Females, p. 255. [2] Pathologie Interne. t. ii. p. 399. [3] Lond. 1836, p. 450.
[4] Pathol. Chir. t. ii. 1809, p. 283. [5] Practice, &c. vol. ii. p. 375.

drastic purgatives, and with remedies accounted specific, — the liquor potassæ, the various preparations of iodine; and I must honestly confess that I am unable to reckon one single instance of success."

Simpson[1] says, "The interior of an ovarian cyst has no power whatever of absorption; and, consequently, no diuretics or de-obstruents of any kind have any therapeutic influence on the reduction of an ovarian tumor by the removal of its fluid contents by the tissues of the tumor itself; and on page 265 he adds, that he would "almost as soon believe that the head could be absorbed and removed by medicine."

Blundell[2] says, "Dropsy of the ovary cannot be cured, in general, by diuretics, cathartics, emetics, mercurial action, or the like;" and recommends caution in their use, "lest you leave the patient in a worse condition than you found her." And on page 827, "It is said that ovarian dropsy has been known to disappear after electrification. In so forlorn a case, the remedy may be worth a trial; but my faith is weak."

Velpeau[3] says of internal medicines, "Peut on compter un seul succés avéré, obtenu par l'emploi d'un de ces moyens?"

Denman[4] says, that, when the disease has made a certain progress, no treatment has any effect in removing it or preventing its increase.

Burns[5] says of diuretics, "My opinion is, that they have no more influence on it than they have over a mellicerous tumor on the shoulder."

William Hunter[6] says, "If I may form a judgment from what I have seen both in the living and dead body, I should believe it to be an incurable disease, and that the patient will have the best chance of living longest who does the least to get rid of it;" and says he never saw a case cured.

1 Obstet. Works, vol. i. p. 254.
2 Principles and Prac. of Midw. p. 817.
3 Dict. de Méd. art. Ovaires.
4 Am. ed. 1807, p. 60.
5 Midwifery, 1811, p. 95.
6 Med. Obs. and Inquiries, vol. ii.

Ashwell,[1] who is much opposed to extirpation, in view of the comparative freedom from suffering, and long period which a patient may live, with occasional tapping it may be, seems to have but slight confidence in medical treatment alone. Speaking of the internal surfaces of ovarian cysts,[2] he adds, "It has never yet been shown that absorbents exist in their structure. That these internal surfaces secrete, there can be no doubt; and in this they resemble the peritoneum: but here the similarity terminates; the absorbent function being only partially and doubtfully performed by the adventitious serous membranes."

On the other hand, I have met with a large number of cases reported as cured by medical treatment; but, considering the extreme difficulty of the positive diagnosis of this disease, they are, in my opinion, entitled to but little weight against such testimony as I have adduced. When complicated with ascites, medical treatment, no doubt, has diminished the size of the abdominal swelling, by causing absorption of the ascitic fluid, as suggested by Burns. Instances of this sort are frequently mentioned.[3]

Percival claimed to have met with good results from the use of emetics; but the case which he gives, in confirmation of this opinion, was, in all probability, a rupture of the sac into the stomach or bowels. The patient was attacked with violent retching on leaving her bed, and, during the day, vomited several pints. In a few days, during which three gallons, exclusive of stools and urine, were discharged, the tumor disappeared. If, under the use of emetics, the straining of the patient should cause a rupture of the sac into the peritoneum, the event might not be so gratifying, particularly if its contents should happen to be of an irritating nature.

Dr. Hamilton[4] says that he has frequently effected a cure by the long-continued use of moderate and equable pressure by a bandage; subjecting the enlarged part, twice a day, to

[1] Dis. of Women, p. 646. [2] Page 680. [3] Craig's case, No. 97 of Synopsis.
[4] On Use and Abuse of Mercurial Medicines, Am. ed. 1821, p. 168.

percussion (either with the fingers, or an instrument contrived by him for the purpose); small doses, for several months, of muriate of lime and tincture of colomba; daily use of warm bath, and exercise in the open air. He also recommends the use of medicated fomentations, and, internally, conium. He acknowledges, however,[1] that cases, "which might have remained for years without inconvenience to the patient, have been forced into morbid activity by a course of mercury."

Rayer also is said to have cured three cases out of thirty-three by friction and iodine;[2] and, were it necessary, many other cases might be mentioned.

PARACENTESIS.

In estimating the value of this as a means of radical cure, we are again met with doubts as to the correctness of the diagnosis in very many of the numerous cases reported as successful. Conceding this, however, many of these recoveries have followed only after intense inflammation of the cyst and of the peritoneum, placing the patient's life in great danger from exhaustion. To this liability to inflammation of the cyst,[3] we may add the danger of internal hemorrhage from a wound by the trocar of the epigastric artery, or some large muscular or omental branch[4] (it being well understood that these are not generally, in such cases, in a normal state), or of some of the large vessels ramifying over the cyst;[5] escape of the contents of the cyst into the peritoneum, with resulting peritonitis; wounding the uterus, as would necessarily have happened in Dr. Ingleby's[6] case, had she been tapped, and which actually did happen in Sargent's[7]

[1] Page 167. [2] Lancet, vol. ii. 1848, p. 121.

[3] McDowall's paper, Dub. Hosp. Gaz.

[4] New-Jersey Med. and Surg. Reporter, June, 1856, p. 292, for a fatal case reported by Dr. Peaslee.

[5] Watson, Practice of Physic, vol. ii. p. 380.

[6] Lancet, vol. ii. 1839–40, p. 10. [7] No. 269 of Synopsis.

case; and wounding the intestine, which, as we shall see, is not unfrequently adherent to the anterior part of the cyst.[1] In addition to these, it is now pretty well demonstrated that there is a peculiar liability to inflammation of the lower lobes of the lungs after operations upon the abdominal cavity; and, finally, when the cyst is reached by the trocar, the contents are not only sometimes, but very often, so gelatinous in their consistence as to bar all attempts at removal[2] without a considerable incision; and this is not tapping. So great, then, is the danger,[3] and so rapid the accumulation after the first tapping, that the best authorities regard it but as a forlorn hope, to be delayed until the patient's sufferings from dyspnœa, and pressure on other organs, render it absolutely necessary.

I should mention here, that, beside the more ordinary method of tapping through the abdominal parietes, both the vagina and rectum have been earnestly recommended as preferable points in which to make the opening, on account of their more dependent position in relation to the cyst. So long ago as 1783, Mr. Watson[4] tapped through the vagina,[5] applying pressure afterwards, by a flannel roller, around the abdomen, leaving the canula in the wound over night, after the first tapping; and there is another case in the same journal, by Sir William Bishop. This plan has been frequently adopted when the presence of an ovarian tumor has obstructed the progress of labor;[6] and Dr. Merriman and Mr. Chevalier both give cases where, under similar circumstances, the cyst has been tapped through the rectum.[7]

[1] Cases of Mussey, Norman, and Teale, Nos. 222, 231, and 265, of Synopsis.

[2] Mr. Abernethy, in witnessing a case of this kind, dissuaded from farther attempts, observing that "it would not do to go on boring holes in the belly." Blundell's Principles and Practice of Midwifery, p. 819.

[3] For other cases illustrative of this danger, see Dr. Bright's paper, in Guy's Hosp. Reports, No. 6, April, 1838.

[4] Med. Communications, vol. i. Lond. 1784.

[5] Though tapped for ascites, the left ovarium was, after death, found to be encysted.

[6] Dr. Lever's Communication, vol. xxiii. of Medico-Chir. Transactions.

[7] Medico-Chir. Transactions, vol. x. pp. 56–67.

PARACENTESIS, COMBINED WITH OTHER TREATMENT,

As pressure, counter-irritation, mercurials, &c., gives us better results, which the opponents of Ovariotomy have much insisted upon, particularly of late years. The most strenuous advocate of this plan is Mr. I. B. Brown, of London, who gives the credit of it to Mr. Gilson, of Essex. Besides the case of Mr. Watson, mentioned above, Mr. Searle [1] describes a new compressing instrument of his invention, with an account of its trial in a case of ovarian dropsy. At first it was injurious, giving rise to pain, &c.: but, after the patient was tapped by Sir Astley Cooper, it seemed to have some effect in preventing the refilling of the cyst; and we have seen that Mr. Cooper himself (p. 4) indicates a similar treatment.

Mr. Brown, whose various papers on this subject may be found in the "Lancet," [2] urges that none of the severer operative proceedings are justifiable until this has had a trial. His first plan was to procure slight ptyalism by the use of mercurials, internally and externally, combining with it, at the same time, pressure by very tight flannel bandaging until the cyst became smaller, or ceased to increase; then to evacuate the cyst entirely by tapping, resume the bandaging, and continue it, with mercurials, diuretics, and tonics, for some weeks longer. In his later papers, he abandons the employment of mercurials; acknowledging that, in one case at least, they had been injurious, and that, of the four cases originally reported as successful, in two the disease had returned. Mr. Eccles [3] reports a case successfully treated in this way; and Mr. Hunt, in the same journal,[4] reports another; though he objects to the mercurial, and says that there are serious objections to the compression, it interfering with proper peristaltic action, and exciting distressing flatulent spasms and severe vomiting. Dr. Locock [5] says that

[1] Medico-Chir. Review for Sept. 1824.
[2] Vol. i. 1844, 1847, 1848, 1849, and 1852.
[3] Lancet, vol. i. 1846. [4] Ibid. vol. i. 1847. [5] Ibid.

where the health is good, and the cyst simple, he has seen a single tapping, followed by pressure, result favorably in many cases, and, omitting the mercury and diuretics, thinks the above plan worthy of attention. Dr. Tanner reports three successful cases;[1] and Dr. Hamper[2] reports another, in which the tapping was through the vagina. Mr. Brown appears to have had from fourteen to twenty cases; it is impossible to say how many, they are so often repeated in the different papers.[3]

Not only is this method inapplicable to those cases in which prolapsus of the womb, bladder, or vagina, already exists in consequence of the pressure exerted by the ovarian growth itself, but it may produce these effects where they have not before complicated the case.[4] Dr. Ashwell[5] says that pressure has probably done more harm than good. Mr. F. Bird mentions a case in which femoral hernia was caused by it,[6] and makes also the following pertinent inquiry: "If the diminution in size has once commenced under this treatment, why not persevere with it, and not tap the patient at all?"

Mr. Barnard[7] reports the case of a patient who was tapped four times in the course of eighteen months. After the last tapping, a seton was passed through the integuments over the tumor, a dozen leeches applied weekly for a time, together with calomel and opium, until the mouth was sore. She recovered, and continued well for three years. I mention this case here, only because it is often erroneously quoted as cure by seton into the cyst.

INCISION. — PERMANENT OPENING IN THE CYST.

The happy results sometimes following the spontaneous rupture of an ovarian cyst, either through the abdominal

[1] Lancet, vol. ii. 1852, p. 261.
[2] Brit. and For. Med. Rev. vol. xx., from a German journal.
[3] He gives two only in his book "On the Surgical Diseases of Women," p. 213.
[4] Van Buren's case, Synopsis, 282. [5] Diseases of Women, p. 562.
[6] Lancet, vol. i. 1846, p. 586. [7] Ibid, January, 1830.

parietes, the rectum, the vagina, or into the peritoneum, has naturally led to the attempt to imitate this process of nature, either by simple incision, tapping, or incision and leaving the canula or a tent in the wound; excision of a portion of the cyst; a seton passing from the abdominal parietes, through the cyst, and brought out through the vagina; opening by caustic; subcutaneous incision; incision through the parietes into the cyst, with closure of the external wound, &c. Though every little variation in detail has been claimed as a discovery, the general principle aimed at has been to allow of the gradual contraction of the cyst, and adhesion of its walls; and, though I shall mention these details, it seems unnecessary for our present purpose to attempt to arrange them in groups according to the particular method employed. I have taken only such cases as I have happened upon in searching for cases of extirpation; and it is probable, therefore, that very many have escaped notice: but I have collected enough to enable the reader to form some judgment as to its value as an operation, in comparison with Ovariotomy. Several cases will be noticed in which the operation for entire extirpation was attempted, and relinquished in consequence of adhesions or other cause; others again, in which injections were used: but, as they were either detersive or secondary in their object, they would seem properly to belong here, rather than to the next section.

M. Voisier[1] reports that Dr. Bruheld cured a case by incision in 1671, and refers, for an account of it, to the Philosoph. Trans. of 1724. I find no such case reported there, the reference being probably erroneous. He says also that Monro performed the same operation unsuccessfully.

Dr. Houston's well-known case, quoted by Denman, Monro, Boivin, and Duges, Ashwell, Gorham, Seymour, and others, is in the thirty-third vol. of the Philosoph. Trans. p. 8. I give a condensed sketch of it. Margaret Miller; age, fifty-eight; tumor of thirteen years' growth; last child born at

[1] Lond. Med. and Phys. Jour. vol. xi. 1804.

forty-five, at which time the midwife "violently pulled away the burthen," after which she was never free from pain in the left groin. There being great suffering from distention, Dr. Houston, in August, 1701, with an "imposthume" lancet, laid open about one inch, and, nothing coming, extended it to two inches. A little thin, yellowish serum only appearing, he incised two inches more, and found that a gelatinous substance "bunged up the orifice." It being so slippery that he could not seize it, he wrapped the end of a strong fir splinter about with lint, and, by turning and twisting it in the wound, drew out two yards in length of a substance thicker than jelly, and in breadth about ten inches! "This was followed by nine quarts of such matter as is met with in Steatomatous and Atheromatous tumors;" several hydatids, "the least larger than an orange;" and "several large pieces of membranes." He then squeezed out all he could, and stitched the wound in three places. The woman recovered, and lived fourteen years without any return of the disease.

Le Dran[1] proposed incision, and gives the following: Patient aged sixty; at forty-eight, menses became irregular; and, for several years, she had menorrhagic and acrid fetid discharges from the vagina. During the last eighteen months, these had ceased; the belly gradually enlarging, until the swelling reached nearly to the navel. Had been tapped twice, at intervals of six weeks, for ascites; and was seen by him the day after the last tapping, in February, 1737, the canula still remaining in the wound. He enlarged the orifice to four inches with a bistoury, and, to insure a free opening, left in a broad lead canula. For six weeks there was abundant sanious suppuration and membranous exfoliations. During this period, injections were used twice a day: at first, "détersives;" afterwards, "vulnéraires et desiccatives." In five months the canula was removed, leaving a fistulous opening; and, three months afterwards, fluctuation was discovered between the fistula and pubes, for which an incision was made

[1] Mémoires de l'Acad. de Chirurgie, t. ii. p. 303.

six to seven inches long, dividing all of the right and part of the left rectus, oblique and transverse muscles, and the epigastric artery. Three pints of pus were removed; the hand introduced, and no tumor found, this abscess being apparently unconnected with the ovary. The wound closed in seven weeks, and she lived four years, — the post-mortem revealing malignant ovarian disease. He recommends that this method should be resorted to before the sac has formed such adhesions as to prevent its collapse.

Le Dran's second case, 1746. — Single woman; age, forty-two; tumor two years' growth; menses irregular, and latterly arrested; fifteen pints drawn by tapping, and the tumor discovered in the left iliac region. Refilling in three weeks, he made an incision "assez grande pour qu'elle ne pût se resserrer promptement," and introduced a canula. Had a severe attack of suppurative inflammation, during which injections of barley-water and honey of roses were used twice daily. At the end of six months, discharged a spoonful only daily. In two years, the wound closed entirely on withdrawing the canula, and the menses returned naturally.

De la Porte.[1] — Age, fifty-seven; ten months' growth in *left* side. On being tapped, a small quantity of gelatinous fluid only escaped. The ensuing day he made an incision of five inches, and the next day, it having contracted, extended it three more. Diarrhœa and fever set in, of which she died the thirteenth day, sixty-seven pounds having been removed. Post-mortem; encysted tumor of *right ovary*, with firm adhesions to mesentery bladder and rectum, and gangrenous openings in the sac, allowing of escape of its contents into the peritoneum. *He suggests the propriety of removing the tumor entirely in such cases.*

Dr. Warren, 1783.[2] — Negress; age, thirty-two; four

[1] The year is not given; but the case was reported by Morand, with the cases of Le Dran and others, and could not have been far from 1740. Mémoires de l'Acad. de Chirurgie, t. ii. p. 316.

[2] Memoirs of Amer. Acad. vol. i. p. 551.

children, youngest twelve years old; disease began after birth of the first. He made an extensive incision through the rectus muscle into the cyst, left side, discharging a quart of watery matter and pus. Introducing his fingers into the cavity, a substance "like soft soap" was felt; of which four pounds, containing hair, was extracted by a table-spoon at this and the three or four subsequent dressings. Finally, the whole hand was introduced into the cavity in search of bone or other débris, but none was found. Recovered in three months: the menses continued regular, but she did not again become pregnant.

Osiander, 1799.[1] — Age, forty; married three years; no children; coition painful, and menses suppressed. He made an incision, and pressed out eight pounds of gelatinous fluid. She soon died of peritonitis, and both ovaries were found to be encysted.

Bernard.[2] — Recommended incising the cyst for two inches by means of a sheathed bistoury, passed through a puncture to be previously made by a trocar, as an imitation of spontaneous rupture. He advises it only in the event of their being no considerable tumor remaining after a preliminary tapping, allowing the cyst to refill before the incision is made. He thinks this a better plan than any "hitherto proposed, whether by injecting fluid into cavity, or introduction of seton."[3]

Voisier.[4] — Age, thirty-seven; tumor beginning after parturition. The cyst refilling in five months after tapping, she was tapped again, and one end of a seton introduced into the cyst. After some time, through neglect, the fistula was allowed to close; and she tapped herself with a penknife at the umbilicus. Death ensued in two months.

[1] Encyc. des Sciences Médicales, vol. xxvii., reported by Bluff, from a German journal of 1799.

[2] Lond. Med. and Phys. Jour. vol. viii. 1802, p. 387.

[3] Dr. Tilt (Lancet, vol. ii. 1848, p. 144) mentions a case in which Maissonneuve, of Paris, made this subcutaneous incision with a cataract knife. No acute symptoms followed; but, in nine months, the cyst refilled.

[4] Lond. Med. and Phys. Jour. vol. ii. 1804.

Archer.[1] — Married; one child five years ago, at which time disease commenced. Three weeks after it began, was lanced two inches deep; a tent introduced, and healthy pus discharged for three weeks; at end of a year, a living worm, eight or nine inches long, like a lumbricus, escaped; in another year (occasional discharges occurring), a tooth was discharged. Wound closed, and she remained well for three years. Nothing said of origin of lumbricus. Was there communication with bowels?

McKeever, Dublin.[2] — Age, forty; married, and several children; fourteen months' growth; menses irregular. An incision of two inches was made, and two gallons of healthy-looking pus discharged. Wound healed in six days. Three months after, a small opening occurred in cicatrix, with discharge of pus. Healed finally in a few weeks.

Scudamore, 1824.[3] — Age, thirty-six; repeatedly tapped; and finally the canula was left in (after the fluid was removed), and *stopped by a plug*. The plug was several times removed at intervals of eight days, and a portion of fluid drawn. Finally, diluted port wine was injected, and again sulphate of zinc, producing merely a sensation of heat. Died, in a few weeks, from exhaustion.[4]

Trowbridge, 1827.[5] — Incisions, tent, injections, and recovery.

Trowbridge.[6] — Mrs. F.; married ten years; one child, six years old; tumor three years' growth; left ovary. Made a "free opening," and removed three quarts; then inserted a tube, through which the discharge continued, with pain and feverish excitement, for some weeks. Tube worn for five months; recovered.

[1] New-York Med. Repos. vol. vi. 1809.

[2] Edin. Med. and Surg. Jour. vol. xvi. 1820.

[3] Reported by Lizars, Edin. Med. and Surg. Jour. vol. xxii. 1824.

[4] Mr. Lizars states also that Prof. Dzondi, of Halle, advised partial extirpation of the cyst, and the introduction of a tent to insure a permanent external opening; but Dr. Dohlhoff, of Magdebourg (L'Expérience, May, 1838), a pupil of Dzondi's, denies this, and expresses astonishment at Lizars's assertion.

[5] No. 266, Synopsis of Ovariotomy Cases.

[6] Boston Med. and Surg. Jour. Aug. 1841.

Trowbridge.[1] — Mrs. C.; age, twenty-seven; married; left ovary; several years' growth. At end of one year became pregnant, and while so was tapped, and five quarts removed; the tube was left in for five weeks, with constant discharge; it was then removed, and, at full term, had a safe delivery. In two years, pregnancy again, with delivery at full term; after which the cyst refilled, and seven quarts were removed by tapping. She died, in six weeks, of inflammation of the cyst.

Lowenhardt.[2] — Incision; matter continuing to discharge for two months, with cure.[3]

Mussey, 1828.[4] — Incision, tent, and recovery.

Galenzowski.[5] — Incision, tent, and recovery.

Recamier[6] reports the following, performed by him, July 23, 1838, with the design of carrying a seton from the vagina entirely through the cyst and abdominal parietes: Age, twenty-six; one child; menses regular; eight years' growth. For the last six years, she has passed, every six months, a "pot de nuit" full of pure blood. He first removed four-fifths of the contents by tapping. He then tapped through the posterior part of the vagina, but could not reach the cyst. No bad symptoms for a week. In three weeks, she discharged from the rectum several basins of yellowish-green fetid liquid, with a corresponding diminution in the size of the tumor. This discharge, together with intestinal hemorrhage, continued until her death, seven weeks from the operation. The autopsy revealed a cyst of the left Fallopian tube, opening into the ascending colon. He says that he has opened them several times by means of caustic potash. Velpeau,[7] speaking, I presume, of the same case, says that Recamier succeeded in establishing a communication with the

[1] Boston Med. and Surg. Jour. Aug. 1841.

[2] Archives Générales de Méd. vol. lviii. p. 362 (quoted by Mr. Bainbrigge).

[3] It seems quite as probable that this case was an abscess of the broad ligament. It occurred immediately after delivery; the opening was per vaginam; and she was well in a week or two.

[4] No. 222, Synopsis. [5] Ibid. No. 171.

[6] Revue Médicale, Jan. 1839. [7] Dict. de Méd. art. Ovaires.

vagina. Mr. Tilt also[1] says that a long India-rubber tube was passed through both openings.

Truckmüller.[2]—Age, forty; married; no children; menses regular; opened abdomen with caustic potash; incised the cyst, and removed the contents daily for some time, injecting a decoction of oak bark. In eight weeks, the wound closed. Died, in a year, of cancer of the spleen.

Dohlhoff.[3] — Tapped, and inserted tent; ten days after, injected wine, without effect, and afterwards a dilute solution of pernitrate of mercury. No local bad effect; but she died, in six days, of exhaustion from the disease.

Dr. Brown, of Maine.[4] — After a second tapping, made an incision of an inch, from which, in forty-eight hours, two gallons of gelatinous matter escaped. The wound healed; but she died in one month from the first tapping.

Dr. Ollenroth,[5] of Berlin, in 1843, proposed a method analogous to that of Le Dran, and gives the following case illustrative of it. The patient had been tapped many times; and finally a part only of the contents was removed, and the canula plugged. For four days, a little was allowed to escape twice daily, by removing the stopper; then, for three weeks, but once daily. The fluid gradually became puriform and offensive. She recovered entirely in one month, and was well two years after. Scudamore, nearly twenty years before, as we have seen (p. 15), had followed a similar plan.

Clay.[6] — Incision and tent; discharge had not ceased at end of a year.

Clay.[7] — Tent through a part of the solid portion of an ovarian tumor, after incision. Recovered in five weeks.

Allison, of Indiana.[8] — Age, thirty-five; fourteen years' growth, during which period she bore three children, and had

[1] Lancet, vol. ii. 1848. [2] L'Expérience, Feb. 1838, from Journal de Grâefe.
[3] Encyc. des Sciences Méd. vol. xxx. from Rust's Magazine, 1838.
[4] Boston Med. and Surg. Jour. 1841.
[5] Brit. and For. Med. Rev. vol. xvii. 1844.
[6] Synopsis, 107. [7] Ibid. 111.
[8] Phila. Med. Ex. June, 1846, and Aug. 1847.

three miscarriages; was tapped several times, and, at last, a tent introduced, and worn nearly four months. Getting worse, a solution of iodine was injected, followed by alarming symptoms for a few days, when the discharge began to diminish. The tent was worn many months; and, more than a year after, there were a few drops of pus discharged occasionally.

Bainbrigge,[1] of Liverpool, has proposed another modification; i.e., to excise a portion of the sac, and fasten its edges to the corresponding external wound by sutures, to prevent escape of viscera, or the contents of the sac, into the peritoneum. Where adhesions exist, of course this is unnecessary; and his operation, so far as I see, differs in no respect from Le Dran's, except that he objects to the introduction of canulas or bougies in place of a simple tent. He operated March 14, 1846, with the intention of removing a portion of the cyst, and attaching its edges to the wound of the parietes. In consequence of extensive adhesions, this was unnecessary; and, after wearing a tent some five months, the tumor had disappeared, and health returned, though there was still a discharge of half an ounce a day. During the progress of the case, detersive injections were used.

Prince.[2] — Obliged to abandon extirpation, inserted a tent, and patient recovered.[3]

Tilt,[4] of London, proposes the following: 1st, To establish solid adhesion to the anterior parietes of the abdomen, by the method adopted in case of hydatid cysts of the liver, — i.e., the application of Vienna paste; and then, by a very small opening, allow the contents to escape only as the cysts contract. There seems to be nothing new in the principle involved. He gives a case, in which, after the external communication had been established in this way, moderate pressure was used, and, in a few weeks, the discharge became

[1] Lond. Med. Gazette, vol. xxxix. [2] Synopsis, 237.
[3] Tent inserted also in his case of splenic tumor, Synopsis, 238.
[4] Lancet, vol. ii. 1848.

purulent and offensive. Injections of tepid water were used daily for some months, the cyst gradually contracting. In the course of a year, she was "in effect well," though the fistula remained for several years. During the progress of this case, purulent stools were passed for several days, probably from an ulcerative opening between the cyst and bowels. Dr. T. also mentions —

Trousseau's plan, of causing adhesions of the cyst to the parietes by introducing pins over a small surface; after securing which adhesions, a puncture was made, and a tent of platinum wire introduced. Trousseau's three cases, however, died.

Dr. Douglass, in June, 1848,[1] repeated the operation of Ollenroth. He made a free incision down to the sac, from which he drew three or four quarts by tapping, and plugged the canula. A pint or more was drawn each day, for several days, after which the stopper was removed altogether. In about a week, the discharge became purulent; and, in six months, she recovered entirely.

Brown, I. B.,[2] of London, proposes a modification of the operation of Bainbrigge, as in the following case. He made an oblique incision, of three inches, in the middle third of the space comprised between the umbilicus and the superior spinous process of the ilium; another, of an inch and a half, at a right angle to the lower end of this, directed towards the symphisis pubis; then tapped the sac, and divided the peritoneum to correspond with the first incision. He then fastened the cyst, on either side of the incision, to the tendon of the external oblique muscle, laid it open, inserted a tent of oiled lint, and applied adhesive straps to the abdomen to keep up gentle pressure. The patient recovered.

He considers the advantage to be in having the opening in the side, and therefore more dependent.

[1] Charleston Med. Jour. 1851.

[2] Lancet, vol. i. 1850, p. 130, and vol. ii. p. 587; also Dis. of Women, &c. p. 227.

Another[1] modification which he proposes, where the fluid is unirritating, is to excise a piece of the cyst after evacuating the fluid, and then close the external wound entirely, leaving any fresh accumulation to be absorbed by the peritoneum. Of this, he gives three fatal cases; and, though he speaks of other organic disease, it seems evident that this result was due to the operation. In a paper[2] read before the Medical Society of London, he gives two more cases treated in this way. One recovered, after an attack of peritonitis. In the other, there were two cysts: he excised a portion of one, and tapped the other only; and, though she recovered from the operation, this latter cyst had been repeatedly tapped since. Why a portion of the second cyst was not excised, does not appear.

Gabb,[3] of Hastings, operated by incision, November, 1851, fastened the sac to the parietes, and inserted a tent of lint. Offensive serum, gas, and pus escaped to the thirteenth day, when it became healthy, and so continued to the time of the report, say five months, the health steadily improving.

Howard,[4] obliged to abandon extirpation, excised a portion of cyst, and inserted tent. Died in seventeen days.

Crouch,[5] through an incision two inches long, drew out a portion of the sac, excised a piece the size of a crown, and closed the external wound, after returning the sac into the abdomen. The wound re-opened the fourteenth day, and a large quantity of fetid air and matter escaped. Injections of warm water, and, occasionally, iodine or zinc. Contraction went on slowly; but, at the end of sixteen weeks, she died suddenly, from escape of matter into peritoneal cavity. As the operation is described, the only wonder is that the matter did not escape earlier.

[1] Mr. Crouch (Lancet, vol. i. 1854) says that this plan originated with Mr. Wilson, of Bristol. In his book, Mr. Brown also credits Mr. Wilson. See also Bernard's proposal, p. 14 of our Essay.

[2] Lancet, vol. i. 1852, p. 544.

[3] Canada Med. Jour. July, 1852, from some English journal.

[4] See Synopsis, No. 186.

[5] Lancet, vol. i. 1854, p. 41.

Southam.[1] — Bainbrigge's operation, and death.

Anderson.[2] — A silver tube worn in the incision twenty-one months, at the end of which time the discharge amounted to half an ounce a day only; the patient washing out the cyst herself, as occasion required.

Prof. Kiwisch,[3] of Prague, proposes the vagina as the proper place for the permanent opening from the cyst (p. 16). This, though varying in detail, is, in principle, the same thing as Recamier's. Prof. Kiwisch gives the following conditions, as necessary to success: 1. That the case be free from complication, and the tumor unilocular; which is to be ascertained by tapping, and emptying the cyst entirely. 2. The cyst should not be so large as to contain more than fifteen pounds of fluid. 3. The cyst to be incised so freely as to permit the easy introduction of the fingers. 4. Injections to be thrown deeply into the sac (to wash it out), of such temperature as agreeable to the patient. 5. The tube to be withdrawn at intervals, but not altogether, until the discharge becomes purulent. He gives the following illustrative case. The tumor projected downwards into the recto-vaginal cul de sac: it was punctured with a curved trocar through the vagina, nine pounds drawn, and the canula left thirty hours in the wound. In ten days, was tapped again, and the puncture enlarged with a bistoury. Several pounds of bloody pus, and flakes of lymph, were removed. Water was then injected with force, and the canula allowed to remain permanently in the wound. She recovered in six weeks, and, a year after, was in perfect health; there being a small, hard, mobile body, the contracted sac, alone remaining, and causing no inconvenience. He has operated on three, who died either from the operation or the previous disease; and, of twenty-five cases, three only were radically cured.

Velpeau[4] claims to have advocated this method in 1831,

[1] See Synopsis, No. 253. [2] Lancet, vol. i. 1853, p. 343.

[3] See Lond. and Edin. Monthly Jour. of Med. Sciences, vol. ii. 1846, p. 230.

[4] Dict. de Méd. art. Ovaires.

and says that M. Nonat operated in this way once, the disease recurring; that M. Michon also did the same, but, on removing the canula the following day to cleanse it, it could not be replaced; and that a new puncture was followed by fatal peritonitis, the canula having penetrated into the peritoneal cavity.

Dr. Meninger,[1] of New York, operated in this way, January, 1854. The eleventh day, the tube escaped, and could not be replaced. Warm chamomile injections were employed; and, in six months, the discharge ceased, and she recovered. He says that Callisen first operated in this way; and that it was recommended at the Academy of Surgery, in Paris, by Allen, as early as 1767.

Dr. Schnetter,[2] of New York, performed the same operation. The discharge continued some time; but, the patient's health not improving at the end of four months, he discovered, on examination, a tumor of the other ovary, which was treated in the same manner. Alarming symptoms followed for a time; but she recovered in eighteen months.

Mr. West, of St. Bartholomew's,[3] operated by incision through the walls of the vagina in two cases. One died; the other was living eighteen months after, though there was a "chronic discharge from the ovario-vaginal opening."

Taking, for our present purpose, the foregoing cases all together, as treated upon the same general principle, though varying very much in detail, we may express the results as follows: —

Of the 73 cases,	22 recovered;	or 1 in 3.31, or 30.13 in 100.
	21 died;	or 1 in 3.47, or 28.76 in 100.
	30 not radically cured;	or 1 in 2.43, or 41.09 in 100.

It is to be borne in mind, that, of the number not radically cured, a large proportion would have lived but a short time

[1] N. Y. Jour. of Med. July, 1854.

[2] N. Y. Jour. of Med. March, 1855. This case is also in the Brit. and For. Med. Rev., copied from a German journal.

[3] Lancet, vol. i. 1853, p. 343.

without relief; and that many of them purchased a long series of years of comparative ease, and freedom from suffering, at the expense only of a more or less annoying fistula. It will be noticed also, that, in many of these stated as not cured, less than six months had elapsed at the time of the report; and it is quite probable, that, at a later period, the discharge ceased altogether, with permanent cure. See cases of Galenzowski, Bainbrigge, Clay, Tilt, and Gabb.

INJECTION OF THE CYST

Has been resorted to, more or less, for the past fifty years, for the radical cure of ovarian dropsy. The use of detersive or irritating injections, to modify the action of serous or pus-secreting surfaces, is not of recent date. In the Philosophical Transactions,[1] Mr. Warrick, of Truro, reports the case of Jane Roman, in which he injected "Cohore claret" and "Bristol water," after tapping for ascites. She recovered. He also mentions the proposal of Garengeot to rinse out the cavity, after tapping so as to remove "the feculent part of the waters." It is only, however, of late years, that this plan has been followed to such an extent as to entitle it to rank among the established points of practice. Its most strenuous advocates have been the French. In hydrocele, hernia, synovial disease, hydrocephalus, pleurisy, ascites, and cystic disease of the ovary, it is now constantly employed; and, very recently, the pericardium itself has been treated in the same way. While looking for cases of Ovariotomy, I have noted such cases, recent or not, as I have met with treated by injection. Some of them, like similar cases quoted in the last section, are instances in which this treatment was an afterthought, as it were, suggested by the progress of the case, and not entering into the original design of the operator; and the great variety of circumstances, relating both to the operation, and the condi-

[1] Vol. xliii. p. 12, 1744.

tion of the cyst, as well as the character of the injection used, will render the result only an approximation to the truth. I trust, however, that it will not be valueless, as an evidence of the frequent success following this method.

In Le Dran's two cases (pp. 12, 13), injections were used, the patients both recovering.

Denman[1] mentions a case in which wine was injected; the patient dying, the sixth day, of inflammation.

Scudamore (p. 15) used port-wine and sulphate of zinc, without any apparent effect upon the disease; the patient dying, in a few weeks, of exhaustion.

Trowbridge[2] injected, as a part of the treatment, warm port-wine and water; the patient recovering in fifteen days.

Samel,[3] after drawing from the cyst thirty-eight pounds of purulent, inodorous liquid, of the consistence of honey, forced air through the canula, as an irritant. Adhesive inflammation was induced, and the patient recovered.

Rigollot[4] drew ten or twelve pounds of "purulent, fetid, greenish fluid," by tapping. Twenty days after, tapped again, and injected "a decoction of plantain and red-rose leaves, with a little wine." This caused acute pain; and, after the liquid was removed, the abdomen was kneaded, in order to inflame it! This result followed, requiring active antiphlogistics. Cure complete in one month, — a small, indolent tumor remaining.

Holscher.[5] — After two tappings, at an interval of four weeks, the cyst was injected with two livres of wine, which was allowed to remain ten minutes; slight febrile re-action. In three months, was well.

Truckmüller. — Decoction of oak bark injected, as part of the treatment. Recovered in two months (p. 17).

[1] Am. ed. 1807, p. 60.

[2] See Synopsis, 266.

[3] L'Expérience, 1838, from Hufeland's Journal, October, 1830.

[4] Med. Chi. Rev. vol. xv. 1831; and Boston Med. and Surg. Jour. vol. v., from the Trans. of the Med. Soc. of Lyons.

[5] Encyclographie des Sc. Méd. vol. xxvii., from Revue Médicale.

Dohlhoff (p. 17).— Wine, and also a solution of pernitrate of mercury, were injected, as a part of the treatment. They seemed to have no local effect; the patient dying, in six days, of exhaustion from the disease.

Pilcher[1] injected an ovarian cyst with sulphate of zinc. Suppurative inflammation ensued; recovered. He thinks it questionable whether this, or entire extirpation, is the more dangerous.

Allison's case (p. 17) seems to have owed its success as much to the iodine injection as the permanent opening.[2] See also pages 18, 20, 21, for cases of Bainbrigge, Tilt, Anderson, Crouch, Kiwisch, &c.

Dr. Duplay[3] says, that neither large size, advanced age, or the character of the encysted fluid, need deter from the operation; and he advises it to be done immediately after the first tapping, instead of waiting some months, as in many of the cases reported. He details the case of a patient, age sixty-five, in whom, all other remedies having failed (drastic purgatives, &c.), he drew four gallons by tapping, and then injected eight ounces of solution of iodine.[4] After kneading well the cyst, the injection was removed. Not the slightest pain was caused; and, though some febrile re-action and tenderness ensued, she soon recovered, and continued well a year after. He quotes from —

M. Boinet, who has also had two[5] successful cases (one injected immediately, the other some months after first tapping), as follows: "Les femmes éprouvent une fièvre, plus ou moins forte; quelquefois il survient des nausées, quelques symptomes légères de peritonite; il y a de l'agitation, de l'insomnie; la peau est chaude, le ventre est plus ou moins

[1] Lancet, vol. i. 1844, p. 390.

[2] Prof. Simpson quotes this as cure by injection.

[3] In an interesting paper in the Archives Générales, 1853, p. 194.

[4] Guibourt's formula, — Iodine, 5 parts; iodide of potassium, 5 parts; alcohol, 50 parts; water, 100 parts.

[5] These cases are in the Archives Générales, t. xxx. 1852, p. 483; and one of them is in the Lancet, vol. ii. 1852, p. 570.

sensible, surtout dans les points en rapport avec le kyste; mais tous ces accidents habituellement légers, cédent promptement au repos, aux cataplasmes laudanisées, aux onctions mercurielles, et disparaissent complètement dans les premières vingt-quatre heures; rarement ils durent plus de deux ou trois jours. Chez les sujets nerveux, la réaction est généralement plus forte; mais elle disparait aussi facilement que chez les autres."

Duplay has since reported[1] another successful case.

Jobert[2] injected one case with alcohol, successfully; and, on the same authority, Ricord has had one, Robert three, Boys de Loury one, and Monod several, successful cases.

Dr. Tyler Smith[3] injected four ounces of tincture of iodine; the case promising recovery at the time of the report, four days after the operation.

Mr. Brown[4] injected five ounces of tincture of iodine (Edinburgh strength), and allowed it to remain. Trifling pain only followed; but the case was unsuccessful, the cyst refilling.

Prof. Simpson[5] has injected ten or twelve cases with iodine, most of them proving successful. He confirms the above opinion as to the absence of any resulting pain or excitement.

Dr. Shattuck,[6] after a second tapping, injected four ounces of tincture of iodine. In three weeks, the fluid re-accumulated, and the operation was repeated. The patient died, in two days, of peritonitis. No autopsy could be obtained; but, as the first injection caused no troublesome results, it is quite probable that the peritonitis was due to other causes than the iodine.

Since writing the above, I find it stated[7] that Prof. Ackley has been successful, in five or six cases, by injecting iodine,

[1] New-Orleans Med. News and Hosp. Gaz. July, 1854, from Bulletin Thérapeutique.

[2] Quoted by Duplay.

[3] Lancet, vol. ii. 1854, p. 459.

[4] Lancet, vol. i. 1855, p. 384.

[5] Obstetric Works, vol. i. p. 260.

[6] Boston Med. and Surg. Jour. 1855.

[7] In Western Lancet of March, 1856.

first causing adhesion of the sac to the abdominal parietes by passing in exploring needles.[1]

Dr. Mussey[2] used injections in two cases, causing a great deal of suffering and no benefit.

Dr. Blackman[3] mentions one case where injections proved fatal.

Dr. Fries also,[4] between the two attempts at extirpation, used injections of nitrate of silver, with no good effect.

In addition to these methods, Dr. Cartwright, of New Orleans, has proposed catheterism of the Fallopian tubes, and[5] gives the details of a case thus operated upon with success, — the only one I have met with; and Dr. Tanner[6] has suggested the propriety, in case adhesions hinder the extirpation of the cyst, of tying the pedicle firmly, after the fluid has been removed by tapping, in the hope that this obstruction of the main arterial supply might prevent a re-accumulation of the cystic secretion, "whilst the supply of blood furnished by the adhesions" will be sufficient to prevent gangrene. I am not aware that this suggestion has ever been carried out in practice.

EXTIRPATION OF THE OVARY.

Notwithstanding the various operative procedures which we have thus hastily reviewed, and in spite of the high surgical authorities arrayed against Ovariotomy, it cannot be doubted that the operation for entire extirpation is looked upon with increasing favor by large numbers of the profession, as experience more fully demonstrates the fact, that extensive wounds of the peritoneum, and exposure of the abdominal viscera, are not so necessarily fatal, as, until quite recently, they were supposed to be.

[1] Trousseau's plan, p. 19. [2] Western Lancet, March, 1856. [3] Ibid.
[4] Synopsis, 169.
[5] Boston Med. and Surg. Jour. vol. xliv. 1851. From New-Orleans Med. and Surg. Jour. [6] Druitt, p. 467.

The objections to this operation, on the one hand, and the arguments in its favor, on the other, must be qualified more or less, according to the value which the reviewer may attach to statistical results. Could we be quite sure that all unfavorable cases were as promptly and honestly reported as those which result happily, we might soon arrive at something like definite notions on the subject; but, unfortunately for the honor of the profession, it is only too true, that, of those who are known to have devoted much attention to this operation, some have been more eager to blazon forth those successful cases which may redound to their glory in the eyes of the public, than to give to their professional brethren their unsuccessful attempts, which, if conscientiously undertaken, would not lessen respect for their skill, and would so greatly benefit their suffering fellow-creatures. If the profession were a trade, this might perhaps be considered as fair and honorable; but if we are, as we are proud to consider ourselves, only God's instruments for the alleviation of human suffering, no man, in any view of the subject which ingenuity can suggest, has a moral right to withhold his experience from his co-worker in so righteous a cause. "Can there be a more flagrant violation of a solemn duty than the practice of keeping in the background what experience has taught that may be unfavorable to any peculiar plan of treatment or unwonted operation? What is it, when a man knowingly lets his fellows carry away a false impression on such subjects, but to violate every law of truth, — to indorse a lie?"[1] Prof. Dohlhoff, in confessing an error of diagnosis,[2] says, "Heureux celui qui peut se rendre le témoignage de ne s'être jamais trompé dans sa vie! Moi, je n'ai pas été si fortuné; mais je suis assez sincère pour avouer mes erreurs, — peut-être plusieurs tireront de l'avantage de cette communication."

This objection, however, does not apply to Ovariotomy alone; and a correct table of all the known operations for

[1] Brit. and For. Med. Chir. Rev. Jan. 1852, p. 230. [2] Synopsis, case 162.

extirpation will be useful to compare with what we know, through statistical tables, of other capital operations. For this purpose, several tables have been compiled, the principal of which are as follows: —

A table by Chereau, published in France many years ago, and which I have been unable to procure.

A table of eighty-one cases, by Mr. Benjamin Phillips, in the Lond. Med. Chir. Trans. June, 1844, p. 468.

A table of sixty-eight cases, by Mr. Walne, in "Ashwell on Dis. of Women," London, 1845, p. 667.

A table of eighty-nine cases, by Dr. Cormack, in Lond. and Ed. Monthly Jour. May, 1845.

A table of a hundred and eighteen cases, by Mr. T. S. Lee, in his essay "On Tumors of the Uterus," London, 1847.

A table of sixty-six cases, by Dr. Churchill, of Dublin, in Dub. Jour. of Med. Sciences, July, 1844.

A table of seventy-four cases, by Mr. S. J. Jeaffreson, Lond. Med. Gaz. September, 1844.

A table of two hundred and twenty-two cases, by Dr. Atlee, in Trans. of Am. Med. Ass. 1851.

A table of a hundred and sixty-two cases, by Dr. Robert Lee, of London, "Ovarian and Uterine Diseases," London, 1853 (these last all operated upon in Great Britain).

Mr. Phillips's table gives few details, and no references. His twenty-second case, Macdonald, should be McDowall, of Kentucky. He credits Ritter's case to Ehrhartstein, and then gives it a second time to Ritter, and says there were no adhesions; while, in fact, Ehrhartstein was only the reporter, and there were adhesions. He gives four cases to Hopfer and Chrysmar: there were but three; and, of these, Chrysmar was the operator, Hopfer being only the reporter. He gives Chrismann credit for a case, as I think erroneously. After an extensive search, I can find no account of it: it is not in Jeaffreson's, Churchill's, or Ashwell's tables, which were published later; and there is no doubt, in my mind, that it

refers to one of Chrysmar's cases. He gives a case to Gooch, which, for reasons given below, I reject.

Mr. Jeaffreson's table repeats the error as to Chrysmar and Hopfer; and his seventy-fourth case, Mr. Heath's, is reported as recovery, whereas she died.[1]

Mr. T. S. Lee repeats the error as to Chrysmar and Hopfer. He gives a case to Dzondi, reasons for rejecting which I have given (see note to p. 15); and he repeats Mr. Phillips's errors as to Chrismann,[2] Ehrhartstein, and Macdonald. He gives no authority for his hundred and seventeenth case (Mr. W.'s); and as Dr. R. Lee's tables, published in 1853, make no mention of it, it may be a repetition of some other case. He also gives "a case in Gooch," and speaks of a second one as not reliable. These must be the same; for Gooch had but one,[3] and that, by Mr. Lee's own showing, an unreliable one.[4]

Dr. Robert Lee's tables, are, like the rest, deficient in details, though his references and authorities are satisfactory; the only ones I question being that attributed to Prof. Simpson, who, according to Dr. Handyside, communicated it verbally to the Edin. Med. and Chir. Soc. in December, 1849. I have examined the proceedings for that month, as reported in the Lond. and Edin. Monthly, and find no mention of it; and I have, besides, authority which, to me at least, is satistory, that this case is not reliable. I have taken a number of cases from Dr. Lee's tables, not elsewhere reported by the operators; among others, one by Mr. Walne, on the authority of Dr. Hogg. A second case, by Mr. Walne,[5] I am doubtful of, as it is not found in Ashwell; and the *violence* spoken of is by no means a characteristic of Mr. Walne's operations, if one may judge from Dr. Ashwell's and other published accounts. I take it, however, on Dr. Lee's authority.

[1] Synopsis, 180.

[2] "Chrismar" or "Chrysmer."

[3] Gooch, p. 222, obs. 10; the preceding observations referring, doubtless, to Lizar's case.

[4] "On Tumors of Uterus," note to p. 274.

[5] No. 108 of Dr. Lee's Table.

The table in Ashwell,[1] and which I suppose from the connection to be by Mr. Walne, has the appearance of having been constructed with care. It contains none of the errors above noticed; and I have taken one (No. 30, Mr. Trustram) on its authority, — the only one which I had not already in my own table.

We now come to Dr. Atlee's table, which, from its extent, I have deferred to the last. It is more full in its details; and I can well appreciate the labor expended upon its construction: but, as correct results are our aim, I am compelled to point out what I conceive to be its errors; and, first, excision of fibrous tumors of the uterus is Gastrotomy, not Ovariotomy. I exclude, therefore, all such cases, unless avowedly undertaken for ovarian disease *under a mistaken diagnosis.* Otherwise we might, with equal propriety, include, under the head of Ovariotomy, all those instances in which the abdominal cavity has been opened by Cæsarian section, for intestinal intussusception, as Nuck's and other cases; for hydatid cysts, and the cysts external to the abdominal reflection of the peritoneum, of which Morand and later surgeons have given instances.[2] Treating Dr. Atlee's table in this way, one must either suppose, that, out of eighteen cases reported by him and his brother, so large a proportion as five were errors of diagnosis, or they must be excluded altogether. I have doubted which course to pursue: but, as he has had so large experience in this particular branch of surgery, it is to be presumed that his diagnosis is less in fault than his tables in this respect; and I therefore omit the following numbers, 76, 83, 199, 200, 204;[3] besides which, I would suggest the following corrections: —

No. 2. He gives a case to Dzondi. See Professor Dohlhoff's denial of this (note to p. 15). Dr. Atlee gives no

[1] On Dis. of Women, Lond. 1845.

[2] Macfarland's cases, Med. Chir. Rev. July, 1835, p. 261. Also New-Orleans Med. Jour. for May, 1844, for account of the removal of such a tumor by Dr. Banks.

[3] In the continuation of his cases in the Amer. Jour. Med. Sciences, April, 1855, three others are reported as Ovariotomy, 16, 17, 21.

reference; and, so far as I can ascertain, Lizars is the only authority.

No. 3. Galenzowski's was *not* a perfect cure. Though she recovered from the operation, a fistulous opening remained at the time of the report.

Nos. 9, 10. Chrysmar had but three cases, as above stated (p. 29). Two of these are repeated under Hopfer's name (86, 87); so that, of *seven* cases credited by Dr. Atlee to Chrysmar and Hopfer, there were, in reality, but *three!*

Nos. 29, 177. Two to Dieffenbach. Doubtless a repetition: they refer to the same case. See the original report, copied from Rust's Magazine into the Archives Générales, 1829, t. xx. p. 92.

Nos. 85 and 175 are repetitions of No. 32, — Ritter's case. Ehrhartstein, as I have already stated (p. 29), was only the reporter.

No. 45. Hargrave's case did not recover. See Mr. Phillips's table; also Dr. Lee's, to whom it was reported by the operator himself as being fatal in five days.

No. 67. Ashwell. There is no such case in the "Lancet" of that date; and Mr. Lee[1] says that it is a repetition of Mr. Morgan's case, sometimes called the "Guy's-Hospital case;" nor is the case mentioned by Dr. Ashwell in his book.

No. 88. Macdonald, — a repetition of McDowall (p. 29).

No. 89. Chrissmann, — a repetition of Chrysmar (p. 29).

No. 99. "Guy's Hospital," — a repetition of Morgan. See Mr. Lee, just mentioned, and compare also the general details of the two.

No. 98. "Case in Gooch," not reliable (p. 30). See also note by Mr. Lee, on Tumors of Uterus.[2]

No. 210. "Anonymous" I reject; the only authority being a nameless "Baltimore paper," too uncertain for statistical purposes.

No. 211. Tueffard, — avowedly *gastrotomy* for the removal of an extra-uterine fœtus, which appeared, by the result,

[1] Loc. cit. p. 271. [2] Ibid. p. 274.

to have escaped through the disintegrated fundus of the uterus; no indication of the ovaries or Fallopian tubes being involved at all.[1]

No. 222, Mussey, he gives from Dr. Mussey himself. It was a uterine tumor; and as I suppose, from the character of the operator, that it was undertaken under a correct diagnosis, it does not belong here.

No. 188. He gives Buckner four cases, of which I make but three.[2] Dr. Atlee's 188 and 189 are, I think, the same; and making, with 190, the two cases referred to in the "Am. Jour. of Med. Sciences," October, 1850, as being in the "Western Lancet." This particular number is deficient in the volumes to which I have had access; nor are the publishers able to supply it.

No. 172. "Mr. W." I omit, for reasons given on p. 30.

No. 101, Professor Webster, I have taken on Dr. Atlee's authority; supposing, from its not being published, that it was communicated to him by the operator.

Nos. 176, 183. Bainbrigge's and Houston's cases were not operations for the removal of the cyst, any more than were Le Dran's, Warren's, &c.; with which cases I have placed them, under another head (pp. 11, 18).

These deductions reduce Dr. Atlee's tables from two hundred and twenty-two to a hundred and ninety-seven cases; and it is perhaps noticeable, that, of the twenty-five cases, twenty-two were recoveries to three deaths, — a matter of some importance in the resulting deductions.

In the following synopsis, I have given my authority for each case, referring to the above-mentioned tables only after making my own collection; and, in the few instances in which I have added to my own from them, the fact is mentioned. They are collected chiefly, as will be noticed, from the French, English, and American medical journals, and from

[1] Am. Jour. Med. Sciences, October, 1849, from Ranking, vol. ix.

[2] I have entered four cases to Buckner; but the last one of them could not have been the fourth of Dr. Atlee, it occurring a year after. It was mesenteric, not ovarian.

Mr. Clay's papers in the "British Record." Though revised several times, there may still be errors which have escaped notice; but I trust that they may prove to be so few as not to vitiate materially any results to be drawn from them. For convenience of reference, they are arranged in alphabetical order, and numbered to correspond with the accompanying tabular sheets. I have admitted such cases as were undertaken on the supposition, by the operator, of their being ovarian disease, although the result may have proved that such was not the case; and this is very necessary, as a proof of the difficulty of diagnosis. From the imperfect character of many of the reports, it is nearly impossible to derive any accurate statistical information as to the long and short incision.[1] An incision in a greatly distended abdomen, reaching only from the umbilicus to the pubes, may be twelve inches or more, and after tapping, or removal of the tumor, be no more than one-quarter part as long, in consequence of the muscular contraction immediately ensuing. After revolving the various methods of Clay, Jeaffreson, Walne, Bird, &c., I have thought it better to take a fixed anatomical point, the umbilicus, for instance, as the dividing line; and, where this is not mentioned, I have taken six inches as the line of division. Mr. Jeaffreson, of Framlingham, makes the distinction to consist in the introduction of the hand for the long, and drawing through the cyst, after evacuating it, for the short. The hand may, however, be introduced through an incision of five or six inches only; and, on the contrary, it may be impossible to extract a thickened cyst, even after removing its contents, through a much longer incision.[2] The comparative merits of the long and short incisions have been one of the bitterest elements of the controversy waged upon the subject of Ovariotomy. But I apprehend that there are other and greater dangers than the extension of the incision a few

[1] Dr. Churchill takes four inches, and Mr. Phillips six, as the line of division between the major and minor operation.

[2] Synopsis, — Dunlap's, Elkington's, Gross's, and Holston's cases.

inches more or less; viz., imperfect diagnosis, the existence of adhesions, and hemorrhage from the pedicle or elsewhere; while it yet remains to be proved whether the presence of the ligatures, and the strangulated stump of the pedicle, are not more fruitful of peritonitis than the incision itself, be it more or less.

Several cases are reported without detail, as "exploratory." This term applies equally well to most of the operations by short incision. I have admitted all such, as they doubtless would have been proceeded with but for some unforeseen circumstance, — adhesions, for instance, or other error in diagnosis.

In those columns of the table which state whether the patient was married or single, I have ranked among the former those who have borne children, or who were known to have had connection: thus, in several instances, prostitutes are so designated.

In many of the reports, no mention is made of the ovary affected; and in a few instances, in which, from the previous history or some circumstances attending the operation, there could be no reasonable doubt, I have made the entry either right or left, as seemed most proper.

Any peculiarity in the operation, I have noted in the margin of the tables, as a reference to the synopsis for further particulars.

For the period of recovery after operation, I have been obliged, in many cases, to exercise my own judgment. The operator's statement has been taken when given; otherwise, the time of removal of the last ligature. That a complete return to health, at the time mentioned, had taken place, is not to be supposed, any more than that a convalescent from fever is to be considered well the day that he is able to sit up; but that the patient may, in the ordinary course of things, be considered as out of danger.

I should also mention, that, in the cases of Dr. Clay and Mr. Bird, where the length of the incision is not expressly

mentioned, I have entered the former as large, and the latter small, incision; such being their usual manner of operating.

SYNOPSIS OF THREE HUNDRED CASES OF ABDOMINAL SECTION FOR THE REMOVAL OF OVARIA.

THE NUMBERS CORRESPOND WITH THE TABLES.

1. Anderson, A.[1] — Operation, Sept. 2, 1848. S. C., age, thirty-four; married nine years; one child; two and a half years' duration; tapped twice; incision ten or twelve inches; extensive adhesions, for which operation was abandoned; the other ovary diseased also, having a single cyst attached. In two weeks, the wound, which had nearly closed, burst open in a fit of coughing; and contents continued to escape until death, three weeks after the operation.

2. Arnott, J. M.[2] — Operation, 1848; age, twenty-three; tentative incision one inch, extended to three inches; two cysts tapped, but, firmly adhering, the operation was abandoned; died.

3. Arrowsmith, J. Y.[3] — Operation, 1846; age, twenty-two (twenty-four?); had been tapped once; incision, six inches; strong adhesions, and operation abandoned; no bad symptoms. Recovered from the operation; tapped again, some weeks after.

4. Atlee, J. L.[4] — C. R.; age, twenty-five; unmarried; seven years' growth; had had various diuretic and alterative treatment; menses irregular for last four years; tapped in June, 1840, and twenty pounds of light straw-colored serum drawn; this was repeated five times for ascites. Operation, June 29, 1843 (ovarian disease not discovered until six months previously). Incision, nine inches, between umbili-

[1] R. Lee, on Ovarian and Uterine Diseases, Lond. 1853, p. 101.
[2] Ibid. p. 98, from Pathological Transactions.
[3] Ibid. p. 99; also T. S. Lee, "Tumors of the Uterus," p. 270.
[4] Am. Jour. of Med. Sciences, January, 1844.

cus and pubes; peritoneum tapped, and eighteen pounds ascitic fluid removed; incision of peritoneum then extended to pubes; cyst of right ovary dipping into pelvis, and adherent; double ligature through the pedicle, and several leather ligatures, afterwards replaced by silk, to omental vessels; also tumor of left ovary, non-adherent; double ligature through pedicle; both multilocular; right weighing eighteen and left fourteen ounces; no bad symptoms; twenty-second day, rode two miles; last ligature came away Sept. 26.

5. Atlee, J. L.[1] — Operation, 1846; age, thirty-three; large incision; adhesions; cyst weighed forty-five pounds; died of pneumonia, fifteenth day; no peritoneal inflammation found after death.

6. Atlee, W. L.[2] — Mrs. G. S.; age, sixty-one; married; menses ceased at forty, soon after which disease began; larger than at full term of pregnancy; tapped on both sides, December, 1843, and seventeen pints albuminous fluid drawn; diagnosed encysted tumor of *right* ovary; March 7, 1844, tapped again on both sides, and removed twenty-one pints. Operation, March 29, 1844. Incision, umbilicus to pubes, afterwards extended two inches; no adhesions; cystiform tumor of *left* ovary, ten and a quarter pounds; pedicle five to six inches broad, tied with three ligatures, in three divisions; no adhesions where tapped; died, sixth day, of peritonitis; cyst, size of an orange, in right broad ligament (which, according to his second report, was ovarian), was not removed.

7. Atlee, W. L.[3] — Mrs. E. K.; age, twenty-nine; married; four children; three years' growth, commencing after third child; procidentia uteri since birth of first child. Tapped, January, 1849; no fluid followed. Diagnosis, fibrous tumor, of doubtful origin. Operation, March 15, 1849. Incision, curving downwards from symphisis pubis

[1] W. L. Atlee's Tables, in Trans. Am. Med. Assoc. 1851, p. 294.
[2] Am. Jour. Med. Sciences, July, 1844, and April, 1855.
[3] Am. Jour. Med. Sciences, October, 1849, and April, 1855.

to middle of crest of right ilium, seventeen inches long; generally adherent to iliac fossa and vessels; Poupart's ligament embedded in it; ligature around the pedicle, which consisted of right Fallopian tube and broad ligament. Fibrous tumor of right ovary, weighing eight pounds; ligature fell nineteenth day; recovered in one month; pregnant twice since, and living in 1855.

8. Atlee, W. L.[1] — Miss M. T.; age, thirty-three; four years' growth; menses at sixteen; irregular since tumor began. Operation, May 22, 1849 (tapped two months before, and got teaspoonful of *blood* only). Incision, four inches above umbilicus to pubes; no adhesions; right ovary as large as an orange, and left also diseased; but, the great mass of the tumor consisting of a diseased uterus, the operation was abandoned. Sat up in nine days; recovered rapidly. She was menstruating the day of, though I presume not till after, the operation. The diagnosis in this case was doubtful, but, from the previous history, "was willing to believe it ovarian." She died of erysipelas the following November, after incisions into the neck of the uterus, and the use of ergot, with reference to disintegration of the tumor.

9. Atlee, W. L.[1] — Miss H. M.; age, twenty-five; single; one illegitimate child; four years' duration; menses regular; tapped for diagnosis a week before the operation, and removed four gallons. Operation, June 16, 1849. Incision, two inches above umbilicus to pubes; adherent to omentum; unilocular cyst of right ovary removed, weighing forty pounds; before removal, the cyst was tapped and emptied, and a double ligature passed through the pedicle. Ligature fell thirty-sixth day, though she was able to go home in one month; had two children since; living in 1855.

10. Atlee, W. L.[2] — Miss L. N.; age, thirty. Operation, Feb. 6, 1850. Incision, one inch above navel to pubes;

[1] Am. Jour. Med. Sciences, April, 1850, and April, 1855.

[2] Trans. of Am. Med. Assoc. 1851, Atlee's Tables; and Am. Jour. Med. Sciences, April, 1855.

extensive adhesions, some of them requiring ligatures; cyst, fourteen pounds, removed; died, sixth day, of peritonitis, attributed to imprudence in diet.

11. Atlee, W. L.[1] — Mrs. F. C.; age, forty-eight. Operation, Feb. 16, 1850. Incision, one inch above umbilicus to pubes; adhesions to intestines and uterus; spermatic artery tied; cyst, twenty-eight pounds; some adhering portions not removed; died, third day, of exhaustion.

12. Atlee, W. L.[1] — Mrs. S. L.; age, forty; tapped five times for ascites; lower limbs, *anasarcous* and ulcerated. Operation, March 19, 1850. Incision, one inch above umbilicus to pubes; adhesions to thickened omentum and uterus; cyst weighed twenty-five pounds; removed; died, third day, of exhaustion.

13. Atlee, W. L.[1] — Mrs. D. H.; age, thirty-seven. Operation, June 15, 1850. Incision, one inch above umbilicus to pubes; extensive adhesions; some adhering portions not removed; divided the pedicle, and tied the vessels separately; cyst weighed twenty-five pounds; recovered; has miscarried once since; living in 1855.

14. Atlee, W. L.[1] — Mrs. M. B.; age, forty-two; greatly prostrated, from miscarriage, fever, &c. Operation, July 25, 1850. Incision, one inch above umbilicus to pubes; adhesions to bowels, uterus, bladder, and pelvis; part of cyst left attached to colon; long slender pedicle; torsion of vessels (no ligature); weight, fifteen pounds; recovered; living, in perfect health, in 1855.

15. Atlee, W. L.[1] — Mrs. J. S.; age, twenty-eight; had been tapped sixteen times. Operation, Nov. 13, 1850. Incision, from a point midway between sternum and umbilicus to pubes; extensive adhesions; cysts weighed eighty-one pounds; died, of *starvation*, thirtieth day. This patient was two months pregnant at time of operation; no miscarriage. He puts this down as recovery, attributing the death to the nau-

[1] Trans. of Am. Med. Assoc. 1851, Atlee's Tables; and Am. Jour. Med. Sciences, April, 1855.

sea consequent upon pregnancy. This may be so; but, in the absence of evidence that the nausea was not increased by so serious a wound of the peritoneum, I report it as fatal.

16. Atlee, W. L.[1] — Mrs. M. W.; age, 29; some ascites. Operation, April 16, 1851. Incision, from near sternum to pubes; firm extensive adhesions; pedicle, six inches broad; multilocular; thirty-five and a half pounds; died, third day, of peritonitis.

17. Atlee, W. L.[2] — Operation, Jan. 3, 1852. Mrs. M. Q.; age, sixty-eight. Incision, seven inches; adhesions; cystiform tumor, twenty-eight pounds, removed; recovered; still living.

18. Atlee, W. L.[2] — Operation, May 31, 1852. Miss H. S.; age, twenty; much prostrated. Incision, one inch below umbilicus to pubes; firm adhesions; purulent cysts, quite rotten; omentum thickened; weight, twenty-five pounds; died, in thirteen hours, of exhaustion. [Were these "rotten cysts, firmly and extensively adherent," entirely removed?]

19. Atlee, W. L.[2] — Operation, Aug. 16, 1852. Mrs. E. A.; age, thirty; five months' growth. Incision, one inch above umbilicus to pubes; both ovaries removed; the right, multilocular and medullary; the left, unilocular, rotten, and gangrenous, containing offensive gas, and everywhere adherent; weight, forty pounds; died, in nine hours, of exhaustion.

20. Atlee, W. L.[2] — Operation, Sept. 14, 1853. Mrs. S. R.; age, fifty-six. Incision, navel to pubes; adhesions; considerable ascites; cystiform pedicle, broad and vascular; weighed fifty pounds; recovered; still living.

21. Atlee, W. L.[2] — Operation, Sept. 21, 1853. Mrs. E. S.; age, twenty-six; six months' growth. Incision, from umbilicus to pubes; extensive adhesions; cystiform; some of them gangrenous, and filled with pus; weight, forty pounds; died, in twenty-two days, from gangrenous perfora-

[1] Trans. of Am. Med. Assoc. 1851, Atlee's Tables; and Am. Jour. Med. Sciences, April, 1855. [2] Am. Jour. Med. Sciences, April, 1855, p. 390.

tion of jejunum, an inch in diameter; wound had healed, and ligatures come away.

22. Atlee, W. L.[1] — Operation, April 17, 1854. Mrs. J. C.; age, thirty-six. Incision, five or six inches; both ovaries removed; no adhesions; cystiform; weighing fifteen pounds; ascites; recovered; still living.

23. Atlee, W. L.[1] — Operation, July 13, 1854. Miss S. M.; age, thirty-one. Incision, umbilicus to pubes; extensive adhesions; both ovaries removed; cystiform; fifty pounds; died, fifth day, of exhaustion; extensive tubercular deposits in abdominal cavity, and disease of mucous membranes.

24. Atlee, W. L.[1] — Operation, Sept. 5, 1854. Mrs. W.; age, fifty-two. Incision, four or five inches; slight adhesions; cystiform; twenty-four pounds; recovered; still living.

25. Atlee, W. L. — Operation, Sept. 30, 1854. Mrs. J. P.; age, fifty-nine. Incision, about six inches; both ovaries and a pelvic tumor removed; right ovary, fibrous; left, cystiform and fibrous; pelvic tumor, fibrous; extensive adhesions; weight, twenty pounds; died, fifth day, of hemorrhage; source not mentioned.

26. Atlee, W. L.[1] — Operation, Oct. 19, 1854. Mrs. S. M.; age, twenty-four. Incision, from above umbilicus to pubes; adhesions; cystiform; thirty pounds; recovered; still living.

27. Atlee, W. L.[1] — Operation, Oct. 31, 1854. Mrs. A. E. L.; age, forty-two. Incision, six to eight inches; extensive adhesions; cystiform; thirty-eight pounds; died, sixth day, of hemorrhage; source not given.

28. Atlee, W. L.[1] — Operation, Dec. 16, 1854. Miss D. P.; age, 49. Incision, five inches; no adhesions; cystiform; eighteen pounds; recovered, and still living.

29. Anonymous.[2] — Age, thirty; married; huge cyst;

[1] Am. Jour. Med. Sciences, April, 1855, p. 390.

[2] Communicated by Dr. Van Buren. (See note to No. 281.)

universally adherent; death, in twenty-eight hours, from loss of blood, and shock.

30. Anonymous.[1] — Married; age, thirty-five; encysted tumor of ovary removed; death, within the week, from peritonitis.

31. Burd, H. E.[2] — Age, twenty-five; married; three children, — *last, seven months old*; twelve and a half months' growth; swelling *irregular*, and apparently *solid*; health good; no signs of pregnancy. Operation, Sept. 15, 1846. Incision, from pubes nearly to ensiform; no adhesions; cyst tapped, and three gallons removed; thick pedicle, tied in three divisions, and also each vessel separately; weight, fifty pounds; uterus found to be three or four months pregnant! Abortion ensued, second day. The placenta gave evidence of there having been hemorrhage; and this was mistaken for menstruation, in making diagnosis before operation; recovered in seven weeks, and had a child the following year.[3]

32. Bellinger.[4] — Negress; age, thirty-five; child, seven years ago, and many abortions since; menses regular; health good; one year's growth. Operation, Dec. 23, 1835. Incision, ensiform to pubes; tumor of right ovary removed, and two large nutrient arteries tied with animal ligatures, and cut close; uterus retroverted, and so much diseased that the finger penetrated its substance, and met a sound, which was introduced through the vagina and os tincæ! Recovered in a few weeks, after enteritis from imprudence in diet; menses had not returned for the eleven years following operation.

33. Bellinger.[4] — No name; tumor existed for many years, and very painful; operation abandoned from extensive adhesions; wound healed in a few days, and patient recovered from operation.

[1] Communicated by Dr. Van Buren. (See note to No. 281.)

[2] Med. Chir. Trans. vol. xxx.; and Lancet, vol. i. 1847, p. 361.

[3] Lond. Med. Gaz. vol. xliii. 1849.

[4] Southern Jour. of Med. and Pharmacy, vol. ii. p. 241, copied into the Revue Médicale, vol. xcix. 1847, p. 99.

34. Bird, Frederick.[1] — Age, thirty-five; married; never pregnant; menses regular; sixteen years' duration; disappeared for seven years of that time; tapped altogether ten times. Operation, June 26, 1843. Incision, three and a half to four inches; sac seized and emptied; slight adhesions; double ligature through, and another around, the pedicle; weight, twenty pounds; ligatures fell thirty-fourth day, and patient well.

35. Bird, F.[2] — Age, twenty-one; single; two years' growth; menses at sixteen, irregular since; nervous depression. Operation, Nov. 23, 1843. Tentative incision, one inch, extended to four and a half inches; no adhesions; tumor seized, tapped, and drawn out, and found to be sessile to uterus; double ligature through pedicle and broad ligament, tied in two portions; weight, twenty-seven pounds; last ligature fell seventeenth day; recovered in three weeks.

36. Bird, F.[3] — Age, thirty-five; married; no children; thinks she once miscarried; menorrhagic; six years' growth. Operation, Jan. 28, 1844. Tentative incision, two inches; found sac so thin, that a cyst was punctured in opening peritoneum; extensive weak adhesions; incision extended to five inches; tumor incised, drawn through, and pedicle tied in three different divisions; right ovary; weight, thirty-five pounds; gelatinous contents; recovered in four weeks. [Incision must have been at least eight inches.]

37. Bird, F.[4] — Age, twenty-one; unmarried; menses at fourteen, — regular since, except temporary suppression at eighteen, supposed to be the beginning of the disease; health bad; great mental depression. Operation, April 21, 1844. Incision, four inches, below umbilicus; cyst of right ovary emptied, and drawn out; no adhesions; double liga-

[1] Lond. Med. Gaz. vol. xxxii.
[2] Lond. Med. Gaz. vol. xxxiii. 1843.
[3] Ibid.; also Lancet, vol. i. 1844.
[4] Lond. Med. Gaz. vol. xxxiv. 1844, p. 38; and Lancet, May, 1844.

ture through pedicle; weight, twenty-nine pounds; recovered in seven weeks, and menses returned.

38. Bird, F.[1] — [Details of this and following cases very deficient.] Tumor so adherent that it was necessary to leave behind a portion of the cyst; recovered.

39. Bird, F.[1] — H. T.; adhesions; great thickness; removed; recovered.

40. Bird, F.[1] — Miss D.; large sessile tumor; adhesions; removed; died third day.

41. Bird, F.[1] — Mrs. L.; cyst bound down in pelvis, causing great suffering; tapping required every ten or twelve days; removed; died third day.

42. Bird, F.[1] — Mrs. H.; large compound tumors, involving both ovaria; removed; recovered.

43. Bird, F.[1] — Mrs. G.; small tumor; non-adherent; removed; died fifth day.

44. Bird, F.[1] — Large compound tumor; removed; died at the end of the week.

45. Bird, F.[2] — Miss K.; age, twenty-one; large tumor; slight adhesions; removed; recovered.

46. Bird, F.[3] — Large tumor, with short pedicle; removed; recovered.

47. Bird, F.[3] — Mrs. P.; very large malignant mass; inseparably adherent posteriorly. Extreme suffering from distention by solid matter, and rapidly approaching death, it was thought rendered the attempted operation justifiable; died the ensuing day. The following facts were given to Dr. R. Lee by Dr. Hogg (see tables, loc. cit. p. 103): "Married in 1841; never pregnant; had been treated by pressure and tapping. Operation, Jan. 6, 1848. Incision, two inches, and extended to ten; impossible to separate the adhesions, and operation was abandoned; died in twenty-eight hours."

[1] Lancet, vol. ii. 1850, p. 592.
[2] Ibid.; and Lond. Med. Gaz. August, 1844.
[3] Lancet, vol. ii. 1850, p. 592.

48. Bird, F.[1] — Mrs. P.; small incision; tapped; not removed; recovered.

49. Bird, F.[1] — Small incision; tapped; not removed; recovered.

50. Bird, F.[1] — Miss ——; incision of larger size; not removed; recovered; lived two years.

51. Bird, F.[1] — Mrs. C.; small incision; tapped; not removed; died in six weeks; advanced in life.

52. Bird, F.[1] — Miss G.; incision; not removed; recovered; lived over two years.

53. Bird, F.[1] — Mrs. B.; incision; tapped; not removed; recovered, and lived nearly three years.

54. Bird, F.[1] — Miss B.; incision; tapped; not removed; lived six months.

55. Bird, F.[1] — Miss B.; incision; tapped; not removed; recovered.

56. Bird, F.[1] — A. B.; incision; tapped; not removed; recovered; tapped several times afterwards.

57. Bird, F.[1] — Incision; tapped; not removed; recovered, and tapped afterwards.

58. Bird, F.[1] — Mrs. S.; incision; tapped; not removed; recovered; tapped afterwards.

59. Bird, F.[1] — Mrs. C.; incision; not removed; afterwards tapped, and died.

60. Bird, F.[1] — Miss G.; incision; not removed; died, next day, from rupture of hepatic abscess [which, I infer, was hastened by the operation].

61. Bird, F.[1] — Mrs. C.; small incision; tapped; not removed; afterwards tapped; living more than a year after the operation.

62. Bird, F.[1] — S. R.; incision; colloid; not removed; living ten months afterwards.

63. Bird, F.[1] — Mrs. W.; small incision; tapped; not removed; recovered; tapped many times afterwards.

[1] Lancet, vol. ii. 1850, p. 592.

64. Bird, F.[1] — L.; incision; tapped; not removed; living a year after.

65. Bird, F.[1] — Miss S; incision; tapped; not removed; recovered.

66. Bowles.[2] — Age, twenty-five; married; four children; one year's growth. Operation, Aug. 5, 1844. Incision, from above umbilicus to pubes, nine inches; adherent anteriorly to omentum, uterus, and bladder; the ligature passed around the pedicle, and then through it; solid tumor, attached to broad ligament, and weighed five pounds; no bad symptoms; two months after the operation, the wound had healed, except where ligature came out; and there was no reason to doubt her entire recovery; right ovary.

67. Buckner.[3] — Age, thirty-nine; several children. Operation, Jan. 31, 1850. Incision, eight inches; numerous adhesions; ligature around pedicle, and tumor of right ovary removed; ligature fell thirty-ninth day; alarming symptoms; but she eventually recovered.

68. Buckner[3] mentions a second case, Mrs. Lawrence, operated on in April, 1848, reported in "Western Lancet," October, 1848, which was successful. After lapse of two years, is in good health, and menstruates regularly; has less sexual desire, as the only difference between her feelings now and before the appearance of the disease.

69. Buckner[3] gives the following details of a third case, alluded to in the same number of the "Western Lancet:" Mrs. W. S.; two solid tumors felt through abdominal parietes; the upper very movable; the other wedged in pelvis, and felt through rectum and vagina. Operation, June, 1848. Incision, from umbilicus to within an inch of symphisis pubis; pedicle of the upper tumor attached to the lower, ligated, and removed; pedicle of lower tumor originating in left Fallopian tube; ligature around the diseased left ovary;

[1] Lancet, vol. ii. 1850, p. 592.

[2] Am. Jour. of Med. Sciences, January, 1845, from Western Lancet, 1844.

[3] Ohio Med. and Surg. Jour. September, 1850, p. 1.

pedicle of tumor ligated in four equal parts; no adhesions; died, sixth day, of peritonitis.

70. Buckner.[1] — Mrs. Tegarden; nine children; two years' growth, following eighth confinement; suffered much, during last part of ninth pregnancy, from colic. Operation, Oct. 4, 1851. Incision, nine inches; when the tumor was found to be mesenteric, with small intestine adherent for twelve inches; the adhesions separated, and several vessels tied; the thirteenth, the wound, which had united, was opened again in lower part, and two pints of fetid, decomposed blood removed! Recovered in seven weeks; was in good health nine months after.

71. Beale.[2] — Age, thirty; unmarried; one year's growth; movable, and free from tenderness. Operation, Dec. 4, 1850. Incision, ten inches, from scrobiculus to pubes; two cysts punctured, and contents removed; double ligature through pedicle; left ovary; in eleven days, able to walk; ligature came away twenty-first day; weight estimated at twenty-five pounds, and fluid at twenty-one to twenty-three pints.

72. Bennett, Ezra, Conn.[3] — Age, fifty-two; married; two children; two years' growth; tapped twice in six weeks, a few months before operation, which was in June, 1851. Adhesions, size of hand, existed between sac and parietes; multilocular cyst, holding a pailful; died, fourth day, of exhaustion; no signs of inflammation!

73. Bennett, Ezra P.[4] — Age, twenty-three; single; two years' growth; size of full term of pregnancy; menses regular. Operation, Jan. 12, 1856. Incision, three inches; no adhesions; sac emptied, drawn out, and double ligature through pedicle; recovered, without an unpleasant symptom.

74. Brown, I. B.[5] — Miss B.; age, thirty; over nine

[1] Am. Jour. Med. Sci. October, 1852.
[2] Lond. Lancet, vol. ii. 1851.
[3] Am. Jour. of Med. Sciences, January, 1852.
[4] New-Orleans Hosp. Gaz. May, 1856, p. 166.
[5] Lancet, vol. i. 1852, p. 544; "On Dis. of Women," &c., p. 261.

years' growth; was treated in its commencement, 1843, by tapping, pressure, mercurials, &c.; last two years, enlarging again. Operation, March, 1852. Made tentative incision of four inches, with the design of excising a portion of the cyst; tapped, and drew nine pints; no adhesions; after excising a portion, it proved to be so vascular as to require entire extirpation (see next case); ligature around the pedicle; left ovary; ligature fell in four weeks, and, following day, she was in her drawing-room; married in 1853, and became pregnant.

75. Brown, I. B.[1] — M. A. B.; age, twenty-three; married; no children; menses regular; two years' growth; no dyspnœa, though it extended close to ensiform cartilage. Operation, May 20, 1852 (tapped 11th). Incision, below umbilicus, of three inches, afterwards enlarged; cyst vascular; peritoneum adherent; tapped, and drew eighteen pints; adhesions; double ligature through pedicle; two cysts and a solid tumor removed; died, in forty hours, of *hemorrhage from a band of adhesion.* Intended, as in No. 74, to excise only a portion of the cyst.

76. Brown, I. B.[2] — E. D.; age, thirty; married; one child; eighteen months' growth; size of six months' pregnancy. Operation, June 16, 1852. Incision, seven and a half inches, extending above umbilicus; adhesions; tapped and incised, and a small amount of gelatinous, puriform, bloody fluid escaped; tumor extracted; ligature around pedicle; one omental vessel tied; left ovary; semi-solid; eleven and three-quarter pounds; menses appeared twenty-sixth day; died, thirty-first day, of peritonitis; two openings into bowels found after death.

77. Brown, I. B.[3] — Mrs. B.; age, fifty-seven; seven children; thirteen months' growth; right side; thirteen quarts removed by tapping, four months before, followed by bandaging

[1] Lancet, vol. ii. 1852, p. 377; and "Dis. of Women," &c., p. 257.
[2] Ibid. and "Dis. of Women," &c., p. 263.
[3] Lancet, vol. i. 1854, p. 365.

and mercury; cyst refilled. Operation, March 2, 1854. Incision, three inches; no adhesions; ascitic fluid escaped, and tumor with it; pedicle tied; tumor, cystic, removed; ligature came away in thirteen, and she went to the country in fourteen, days. The pedicle and ligature were kept external, as in Mr. Erichsen's case (No. 168).

78. Brown, I. B.[1] — Miss E.; age, twenty-seven; six years' growth (?); had been treated by tapping and pressure, and was so much better as to marry. Incision, four inches, afterwards enlarged twice; slight adhesions; three cysts; ligature around pedicle, common to all of them; died, third day, of peritonitis. (Full length of incision not given: I have reckoned it as long.)

79. Brown, I. B.[2] — Mrs. D.; age, thirty-seven; nine years' growth; tapped seven times in past five years. Operation, July 1, 1852. Incision, eight inches; adhesions; pedicle tied, and multilocular disease, weighing seventy pounds, removed; died, fifth day, of peritonitis.

80. Brown, I. B.[3] — Mrs. R.; age, thirty-seven; two children; two years' growth. Operation, April 6, 1854. Tentative incision, one inch, extended to three and a half; adhesions; pedicle tied in four portions, and retained at external edge of wound; died, ninth day, of peritonitis; piliferous cyst.

81. Bayless.[4] — No details; operation successful.

82. Bayless.[5] — Age, twenty; married; two children, one seven, the other five, years old; four years' growth. Operation, Jan. 15, 1853 (tapped in previous August). Three gallons first drawn by tapping; then incision of six inches made below umbilicus; several cysts tapped, to amount of one gallon; adherent, by a narrow band, to the fold of the peritoneum, holding the sigmoid flexure of the colon in its

[1] "Dis. of Women admitting of Surgical Treatment," p. 256.
[2] Ibid. p. 259. [3] Ibid. p. 280.
[4] Trans. of Am. Med. Assoc. vol. iii. 1850, p. 379.
[5] Am. Jour. Med. Sciences, July, 1853, from. St. Louis Med. and Surg. Jour.

place, and also to the fimbriated extremity of the left Fallopian tube, which was dissected from the tumor, ligatured one and a half inch from uterus, and cut away; ligature around pedicle and tumor removed; died, in twenty and a half hours, of hemorrhage; two and a half quarts of blood found in abdomen, supposed to have come from external incision, the ligatures being all firm. The long band of adhesion, not ligatured, may have been the source of the hemorrhage: see Gross's case, No. 175; also Brown's, No. 75. He speaks of other cases, one of which was removed with success, after being tapped seventeen times [possibly the preceding case, 81].

83. Bradford, Ky.[1] — Miss H.; single; age, twenty-one; twelve years' growth, having *commenced at nine years of age*, after scarlatina; menses appeared at twelve, and continue regular; variety of treatment; health failing. Operation, June 14, 1853. Incision, eighteen to twenty inches, between ensiform and pubes; adhesions to omentum; cyst tapped, extracted, and double ligature passed through pedicle; left ovary, forty-one pounds, containing, attached to inner wall, plates of bony substance, varying in size from pin's head to saucer; up sixteenth day, and ligature came away sixth week.

84. Bigelow, H. J.[2] — Age, twenty-two; one year's growth; ascites; tapped twice, and ropy, transparent fluid drawn. Operation, Dec. 29, 1849. Incision, umbilicus to pubes, afterwards extended; cysts tapped; adhesions divided, and tumor of left ovary removed, weighing eight pounds; also a small fibrous tumor of uterus, three quarters of a pound; died third day.

85. Burnham.[3] — Age, forty-two; single; six years' growth; diagnosticated disease of left ovarium. Operation, June 25, 1853. Incision, two inches above umbilicus to pubes,

[1] Am. Jour. Med. Sciences, April, 1854.
[2] Boston Med. and Surg. Jour. January, 1850.
[3] American Lancet, January, 1854.

and discovered a fibrous pediculated tumor of fundus uteri, a fibrous tumor of the left ovary, a cystic tumor of right ovary; the uterus also was enlarged, and impacted in the pelvis. The pediculated tumor was first ligatured and removed; then the left ovarian tumor dissected from the broad ligament, and (first tying the spermatic vessels) removed; then the right ovarian sac incised, and the liquid removed; fourthly, the uterus itself dissected from its attachments, down to the reflection of the vagina from the cervix, and removed, only the two uterine arteries requiring ligature; and, last of all, the right ovarian sac (previously emptied) removed! After violent peritonitis, with offensive suppuration from abdomen and vagina, the patient was out of danger, and able to be up in thirty-five days! He claims to have operated on six cases, all but one successful; but I find no report of them.

86. Baker, Alfred.[1] — Age, eighteen; began at age of twelve years three months; six years' growth. Operation, May 7, 1851. Incision, two inches, afterwards enlarged; cyst punctured, and seven gallons discharged; universal adhesions; considerable hemorrhage; cyst removed; died, in twenty-six hours, of collapse.

87. Blackman.[2] — Tapped several times. Operation, Dec. 22, 1855. Adhesions slight; ovarian tumor of twenty-two pounds removed; no bad symptoms after; recovered.

88. Cooper, Bransby.[3] — Age, thirty-two; married; never pregnant; menses always irregular; disappeared spontaneously at end of a year; in eighteen months, refilled and disappeared again; in twenty months, refilled and tapped, and again in thirteen months; about five years' growth. Operation, Nov. 3, 1843. Incision, from three inches below ensiform to pubes; slight adhesions; double ligature through pedicle; died, of peritonitis, in seven days; cyst of right

[1] R. Lee's Table, loc. cit. from the operator.
[2] Western Lancet, March, 1856.
[3] Med. Chir. Trans. vol. xxvii. p. 81.

ovary weighing thirty-two pounds; fungoid disease of uterus discovered after death.

89. Cornish.[1] — L. B.; single; age, nineteen; eighteen months' duration; menses at fifteen, tolerably regular, with exception of six months. Operation, Feb. 19, 1850. Temperature of room, eighty-five degrees; incision, four inches above umbilicus to pubes, — ten inches; tapped; adhesions slight; two double ligatures, at intervals of half an inch, through the pedicle; two small omental vessels ligatured; fifty-fourth day, wound healed, and menstruated next day; tumor of right ovary, seven and a half pounds, five of them fluid; was well two years and more after.[2]

90. Chrysmar.[3] — Age, forty-seven; eight children; sixth delivered by forceps; bad recovery from eighth, and menses ceased three years after; about four years' growth; left ovary. Operation, May 16, 1819. Incision, from ensiform to pubes; a gallon of *ascitic* fluid removed; extensively adherent to colon, stomach, and peritoneum; adhesions separated, and pedicle tied with two ligatures; also two branches of epigastric; tumor, seven and one-third pounds, lardaceous and cartilaginous; died, in thirty-six hours, of peritonitis, and gangrene of intestines.

91. Chrysmar.[3] — Age, thirty-eight; married at twenty-five; five children in seven years; metritis after the fourth, from which period the disease dates its origin. Operation, June, 1820. Incision, ensiform to pubes; tumor of left ovary, larger than a child's head, removed; adherent posteriorly to pelvis; no bad symptoms; recovered in six weeks; fibrous tumor, and weighed eight pounds; recovering, became pregnant, and was well eight years afterwards.

92. Chrysmar.[3] — Age, thirty-eight; single; rickety; menses always irregular; six years ago, tumor discovered in

[1] Lancet, vol. ii. 1850, p. 680.

[2] Lancet, vol. ii. 1852, p. 70.

[3] Archives Générales, t. xx. 1829, p. 93, from Grâefe and Walther's Jour. vol. xii.; Lond. Med. Gaz. February, 1829; and Brit. and For. Med. Rev. October, 1843, p. 398.

connection with ascites; had been tapped for ascites. Operation, August, 1820. Incision, ensiform to pubes; three quarts ascitic fluid discharged; adhesions only to projection of sacrum; double ligature around pedicle, which was four inches thick; died, from shock, peritonitis, and gangrene of intestines, in thirty-six hours; left ovary removed, lardaceous, filled with fibrous cysts, weighed six and a half pounds; the right ovary also was enlarged, and the liver and uterus diseased.

93. Crouch.[1] — Age, twenty-four; single; growth two years; tapped in previous May, and seven pints drawn. Operation, July 9, 1849. Incision, nine inches; five cysts tapped; slight adhesion; not less than two hundred cysts of left ovary, filling the pelvis; two double ligatures through pedicle, as in nævus; four cut close, and four left out; no bad symptoms; menses appeared second day; sitting up the twelfth day; recovered in five weeks; cysts weighed four pounds; married next year, and had a child, October, 1851.

94. Crisp.[2] — Twenty years' duration; twice tapped; contained three gallons; no adhesions, even where tapped; recovered.

95. Childs.[3] — M. W.; age, thirty-three; married; two children; ten months' growth; size of eight months' pregnancy; right ovary. Operation, March 28, 1853. Incision, three inches, below umbilicus; no adhesions; tapped, and pailful of dark-brown fluid drawn; several cysts extruded; double ligature through pedicle, and, after its division, a ligature to the principal artery; recovered.[4]

96. Childs[5] mentions a second case; no details; patient died of diarrhœa.

97. Craig, J., Ky.[6] — Mrs. H.; age, twenty-six; one

[1] Lond. Med. Gaz. vol. xliv. 1849, and December, 1851.
[2] Lancet, vol. i. 1839–40, p. 287.
[3] Lancet, vol. i. 1853. [4] Vol. i. 1854, p. 617.
[5] Lancet, vol. i. 1854, p. 420.
[6] Western Jour. of Med. and Surg. August, 1855.

child; menses at fifteen; at sixteen had suppression from cold, and never after regular; complicated with ascites, which disappeared several times under treatment. Operation, April 22, 1854. Tentative incision, three inches, afterwards extended to scrobiculus; ascitic fluid escaped; adhesions (previously diagnosticated); tapped cyst, but found contents too thick to pass through the canula; found very extensive adhesions to omentum and small intestines; contents evacuated, and tumor extracted; double ligature through pedicle (of left ovary); recovered in seven weeks, and, four months after, was perfectly well; solid part, eleven and three-quarter pounds; "fluid viscid, with masses of fat floating in it;" under microscope, "oil globules, granular cells, and crystals of cholesterine."

98. Clay.[1] — Mrs. Wheeler; age, forty-six; eight children; three years' growth; menses regular; prolapsus of vagina. After moving the bowels with inspissated ox gall, the operation was performed, Sept. 12, 1842, temperature of room about seventy-one or seventy-two degrees. (He attaches great importance to the temperature, and the exhibition of ox gall.) Incision, sternum to pubes ("in all cases, the incision should be proportioned to the size of the tumor"); adhesions; six and a half pints of ascitic fluid; solid tumor of right ovary removed, weighing seventeen pounds five ounces; ligature around pedicle, and vessels tied separately also; bled twice; flatulence relieved by introducing tube into rectum; in three weeks, completely recovered.

99. Clay.[1] — Eliz. Beswick; age, fifty-seven; nine children; ten months' growth; twenty-five and a half pounds ascitic fluid removed a week before operation. Operation, Oct. 7, 1842. Incision, two inches above umbilicus to pubes; unexpected adhesions; double ligature through pedicle; cystic and solid tumor of left ovary, weighing nine pounds; recovered in two weeks.

[1] British Record of Obstetric Med. vol. i. p. 179, *et seq.*; and Med. Chir. Rev. October, 1843.

100. Clay.[1] — Mrs. Dillon; married eight years; no children; age, forty-six; menses regular; seven years' growth; tapped two years before, and two pints of bloody fluid drawn; menstruating at time of operation! Operation, Oct. 26, 1842. Incision small, and a large vascular tumor, universally adherent, discovered; punctured, and pure blood followed; operation abandoned; died sixth day; malignant disease, estimated at thirty pounds.

101. Clay.[1] — Hannah Edge; age, thirty-nine; three children; seven years' growth, beginning after birth of second child; enormously distended; tapped five times, the last being five days before operation; complicated with ascites. Operation, Nov. 8, 1842. Incision "bold;" adhesions very extensive; cysts of right ovary immense, and, with solid part, weighed seventy-three and a half pounds; ligature on pedicle, which appears to have consisted of the right Fallopian tube and broad ligament; left town in five weeks; was well six years after.

102. Clay.[1] — Mrs. Hardy; age, forty-five; never had children. Operation, 17th (?), 1843. Size of eight months' pregnancy; incision, thirteen inches; no peritoneal adhesions;[2] surprised to find vascular tumor involving both ovaries and nearly the whole of the uterus, all of which were removed; notwithstanding ligatures, hemorrhage followed, and she died in an hour and a half; weighed, in all, thirteen pounds.

103. Clay.[3] — Hannah Hague; age, twenty-two; single; never had children; five or six years' growth; had been tapped six times; menses regular; had been salivated. Operation, Aug. 21, 1844. Long incision; adhesions; solid and cystic tumor of right ovary, weighing twenty-nine pounds fourteen ounces, removed; recovered in twenty-three days.

[1] British Record of Obstetric Med. vol. i. p. 179, *et seq.*; and Med. Chir. Rev. October, 1843.

[2] It is not clear that the ovaries were removed; though, from the description, I judge that they were.

[3] British Record of Obstetric Med. vol. 1. p. 282; and Dr. Lee's Tables.

104. Clay.[1] — Miss R.; age, thirty-five; tapped seven times, the last four days previously; ten or twelve years' growth. Operation, Jan. 21, 1845. Incision, fourteen inches; no adhesions; cystic and solid; twenty-three pounds; removed; went home the fifteenth day.

105. Clay.[2] — Mrs. L; had been frequently tapped, and ruptured two or three times spontaneously beneath umbilicus. Operation, March 10, 1843. Adhesions extensive; solid and cystic tumor, of twenty-five pounds and a half, removed; died, of hemorrhage from the pedicle, in twenty-seven hours. The hemorrhage seems to have been accidentally caused by fright in sleep.

106. Clay.[3] — Mrs. B.; had had various methods of treatment tried upon her; tapped once. Operation, October 5, 1843. Incision, four inches; more than two large wash-hand-basins of loose hydatid cysts escaped; uterus, liver, spleen, and right ovary, enlarged. Operation abandoned; tent inserted; discharge continued; recovered from the operation in a week; and from the disease, the discharge ceasing in about six months. This can hardly be considered ovarian disease: it was error in diagnosis.

107. Clay.[4] — Mrs. Woods; larger than full term of pregnancy, and had had several inflammatory attacks. Operation, July 23, 1845. Incision, four inches; universally adherent; sac incised, and emptied of twenty pounds; tent inserted; fifth day, discharge became purulent; recovered from operation in eight weeks; more than a year afterwards, the discharge had not ceased, though her health was good.

108. Clay.[5] — Mrs. S.; age, fifty-one; menses irregular; one child, twenty-nine years previously; tapped four days before operation, which was done Jan. 14, 1846. Incision, umbilicus to pubes, six inches; no adhesions; cyst of left ovary, six pounds; recovered in eight days.

[1] British Record of Obstetric Med. vol. i. p. 285; and Dr. Lee's Tables.
[2] Ibid. p. 289. [3] Ibid. p. 318. [4] Ibid. p. 320. [5] Ibid. p. 322.

109. Clay.[1] — Mrs. T.; age, thirty-five; ten years married; never pregnant; tapped four times, last being four days before operation, which was done Aug. 28, 1845. Right ovary, cystic and solid, eighteen pounds; trifling adhesions; recovered in three weeks, and menstruated regularly since, though irregular before.

110. Clay.[2] — Mrs. S.; age, thirty-eight; married twelve years; sterile; four years' growth; menses ceased; tapped three times. Operation, Oct. 5, 1845. Cystic and solid; fourteen pounds' weight; recovered in four weeks; two large cysts.

111. Clay.[3] — Hannah P.; age, twenty-seven; three years' growth; menses irregular; tapped once. Operation, Sept. 1, 1848. Right ovary cystic and solid; partially removed; long tent passed through a portion of the solid part, and both ends brought out of external wound; fetid, purulent discharge the fourth day; discharge ceased, and tent came away in five weeks, and menstruation re-appeared.

112. Clay.[4] — Mrs. Hague; four children; began during pregnancy; complicated with ascites; tapped twice. Operation, June 2, 1847. No adhesions; cystic and solid; fourteen and a half pounds; recovered in one month; conceived five months afterwards, and aborted at seventh month; age, thirty-two.[5]

113. Clay.[6] — Mrs. Young; age, thirty-two; one child; four years' duration; menses irregular for three years; tapped five times. Operation, July 12, 1846. Incision, thirteen inches; cystic and solid tumor, of twenty-two pounds, removed; recovered in five weeks, and menses became regular.

114. Clay.[6] — Mrs. R.; age, forty-five; never pregnant; twelve years' growth; menses irregular. Operation, March

1 British Record of Obstetric Medicine, vol. i. p. 363.
2 Ibid. p. 365. 3 Ibid. p. 368. 4 Ibid. p. 369.
5 Lee's Tables, from which I have taken the age of several.
6 British Record of Obstetric Medicine, vol. i. p. 390.

12, 1846. Incision, sternum to pubes; adhesions; right ovary, forty-six pounds, removed; solid; recovered, after peritonitis, and menstruation became regular.

115. Clay.[1] — Mrs. Jones; age, fifty-one; sixteen years' growth; emaciated; tumor of forty pounds removed (solid?); some adhesions; died, of exhaustion, in thirty-six hours.

116. Clay.[2] — Mrs. Elliot; age, forty; never pregnant; menses irregular. Operation, Aug. 30, 1843. Adhesions; cystic and solid tumor of right ovary, thirty pounds, removed; died, in forty-eight hours, of peritonitis.

117. Clay.[2] — Mrs. Priest; age, forty; ten or twelve years' growth; tapped three times. Operation, Nov. 16, 1843. Incision, ten inches; adhesions; cystic and solid; sixteen pounds; removed; recovered (right ovary?).

118. Clay.[2] — Eliz. Winstanley; age, twenty-six; three or four years' growth. Operation, Nov. 9, 1846. No adhesion; cystic and solid tumor of right ovary, weighing thirty-five pounds, removed; died (peritonitis?), tenth day, from imprudence in diet.

119. Clay.[2] — A. Brooks; age, fifty-two; sixteen years' duration; menses irregular. Operation, Jan. 16, 1844. Incision, twelve inches, and found, beside disease of left ovary, ascites and enlarged uterus; both ovaries and uterus removed; did well to thirteenth day, when inflammation was caused by a fall, and she died the fifteenth day after the operation.

120. Clay.[3] — Mrs. Lythgoe; age, fifty-one; disease of long standing. Operation, March 15, 1848. Incision, ten inches; adhesions; ascites; right ovary, cystic, forty pounds; recovered in about three weeks.

121. Clay.[3] — Mrs. Ball; age, forty-seven; five or six years' growth; tapped in March; some time after, made exploratory incision, and, on account of adhesions, declined proceeding; tapped again, in June, and the 14th of June,

[1] British Record of Obstetric Medicine, vol. i. p. 390.
[2] Ibid. p. 391. [3] Ibid. p. 392.

1848, operated, making incision lower down than the first to avoid adhesions, and removed the tumor with ease; died, sixth day, of exhaustion.

122. Clay.[1] — Mrs. Brown; age, forty; tumor removed; forty-six pounds; recovered.

123. Clay.[2] — Miss M. K.; tumor removed; died, within twenty-four hours, from shock and great exhaustion.

124. Clay.[2] — Mrs. Trail; age, thirty-five; ascites; cystic tumor removed; died third day.

125. Clay.[2] — Ellen Duxbury; age, twenty-seven; cystic and solid tumor removed; forty-eight pounds; since married.

126. Clay.[2] — Mrs. S. (Oldham); age, forty-five; tumor removed; twenty-eight pounds; recovered, and continues well.

127. Clay.[2] — Mrs. Alice; age, twenty-five; tumor, forty pounds, removed; recovered.

128. Clay.[2] — Miss J., Ireland; age, eighteen; tumor removed, of thirty pounds; died, of shock and exhaustion, in thirty-six hours.

129. Clay.[2] — Sarah Jackson; age, forty-seven; tumor removed, thirty-seven pounds; recovered, and remains well.

130. Clay.[2] — Mrs. Roberts; age, twenty-seven; tumor removed, thirty pounds; died, ninth day, of exhaustion.

131. Clay.[2] — Mrs. R.; age, thirty-five; tumor, twenty pounds, removed; died, of inflammation, third day.

132. Clay.[2] — Mrs. McA.; age, thirty-seven; tumor removed, of forty pounds; recovered slowly, but now in good health.

133, 134, 135, 136, 137. Clay.[2] — Exploratory operations. First four recovered; tumors not removed [probably from adhesions]; short incisions. 137, not removed; recovered from operation; was tapped, and died, thirty-five days after the exploratory operation, of exhaustion.

[1] British Record of Obstetric Medicine, vol. i. p. 393; also Lee's Tables.
[2] Ibid. p. 394.

138. Clay.[1] — Mrs. W.; tumor removed, 1849; age, thirty-three; weight, thirty-one pounds; pregnant since.

139. Clay.[1] — Miss W.; age, thirty-two; removed, 1849; thirty-five pounds; recovered.

140. Clay.[1] — Mrs. S.; age, forty-eight; removed, 1849; seventy-six pounds; recovered.

141. Clay.[1] — Mrs. H.; age, forty-five; removed, 1850; twenty-four pounds; recovered.

142. Clay.[1] — Mrs. S.; age, thirty-eight; removed, 1850; twenty-four pounds; recovered.

143. Clay.[1] — Miss B.; age, thirty-five; removed, October, 1850; twenty-seven pounds; died, ninth day, of inflammation and obstruction of the bowels.

144. Clay.[1] — Mrs. P., of Manchester; age, thirty-three; removed, November, 1850; weight, ten pounds; recovered.

145. Clay.[1] — Mrs. P., of Glasgow; age, fifty-seven. Operation, November, 1850. Weighed twenty-six pounds; recovered.

146. Clay.[1] — Mrs. H.; age, thirty-two; sterile; small tumor removed; recovered.

147. Clay.[1] — Mrs. C.; age, forty-five; tapped ten times. Operation, February, 1851. Tumor, twenty-five pounds, removed; died second day.

148. Crume[2] says he operated, eight years ago, for ovarian tumor, and found *tubal fœtation* instead! Result not given.

149. Duffin, E. W.[3] — Age, thirty-eight; good health; eight months' growth. Operation, Aug. 27, 1850. Tentative incision; no adhesions; enlarged to three inches; sac tapped, and drawn through the aperture; double ligature through and another around the pedicle; *pedicle and ligatures kept from receding by stitching them to the external wound;* ligature and slough came away fifteenth day, and she recovered in three weeks; left ovary.

[1] R. Lee's Tables, to whom they were given by Dr. C.

[2] Western Lancet, March, 1856. [3] Lond. Lancet, vol. ii. 1850, p. 583.

150. Dickin.[1] — Age, eighteen; unmarried; twenty months' growth. Operation, 1845. Incision, fourteen inches; adhesions; double ligature through pedicle; right ovary; twenty-eight pounds; able to be up and walking about at end of three weeks.

151. Day.[2] — Mrs. Howard; age, forty-two; married twenty-one years; nine children; two and a half years' growth; one full pregnancy during that time; nursed twelve months; weaned, June, 1850; tapped in August, 1850; in a month, refilled, and had diarrhœa and dyspnœa. Operation, Sept. 26, 1850, five gallons *ascitic* fluid previously drawn by tapping. Incision, five inches; no adhesions; incision extended from ensiform to pubes; double ligature through pedicle; left ovary; ligature came away fifteenth day, and was followed by "appearance and smell of feculent matter;" this soon ceased, and she was well Oct. 31, — five weeks.

152. Dunlap, Ohio.[3] — Mrs. B.; age, thirty-seven; five children; one year's growth (probably); tapped four times in last six months. Operation, March 24, 1853. Incision, umbilicus to pubes, twelve inches; adhesions slight; cyst evacuated, and with solid portion, size of child's head, extracted; double ligature to pedicle; thirteenth day, walked across room; ligature fell in three weeks; left ovary, thirty-seven pounds.

153. Dunlap.[3] — Mrs. F.; age, forty-six; growth, three years; menses ceased at forty. Operation, May 17, 1853, same as preceding. Incision, ten inches; slight adhesions to omentum; ligature fell twenty-seventh day; left ovary, sac and contents, thirty-one pounds; menses appeared second day, and continued three days (probably uterine congestion, not menstrual).

154. Dunlap.[4] — Mrs. H.; age, thirty-five; six children;

[1] Am. Jour. Med. Sciences, January, 1846; and Brit. and For. Med. Rev. January, 1847; also Lee's Tables.

[2] Am. Jour. Med. Sciences, October, 1851, from Brit. Prov. Med. and Surg. Jour.

[3] Am. Jour. Med. Sciences, October, 1854.

[4] Western Lancet, June, 1851; and Am. Jour. Med. Sciences, October, 1854.

last, three years old; tumor of six months' growth. Operation, June 10, 1850. Incision, umbilicus to pubes, eight inches; sac evacuated; incision extended to eleven inches; extensive adhesions; double ligature through pedicle; flatulence relieved by tube; ligature came away in one month; recovered in six weeks; has had a child since.

155. Dunlap.[1] — Operation, 1843, never reported. Cystiform tumor, weighing forty-five pounds, removed; died, seventeenth day, of diabetes!

156. Dunlap.[2] — Jane Ramsey. Operated, Nov. 15, 1855. Tumor of sixty pounds removed; seventeenth day, doing well, and promised speedy recovery.

157. Deane.[3] — Age, forty-three; one year's growth; "movable, globular, symmetrical, smooth, and solid;" supposed to be tumor of left ovary. Operation, June 6, 1848. Incision, from umbilicus to pubes, and found a solid, fibrous tumor, embracing the entire left half of the uterus, this organ having the appearance of being embedded in the tumor; operation abandoned; no hemorrhage; excessive collapse, followed by violent inflammation; able to sit up in a fortnight.

158. Deane.[4] — Age, forty-five; several years' growth; tapped once. Operation, 1850. Incision, twelve inches; no adhesions; double ligature around pedicle, and each vessel tied separately also; died, of peritonitis, twelfth day; tumor, thirty-seven pounds.

159. Dieffenbach, Berlin.[5] — Age, forty (une Polonaise); married at eighteen; never pregnant; menses regular; ten or twelve years' growth; caused by a blow and domestic troubles; *movable in every direction, and partly on its own axis even.* Incision, from three inches above umbilicus to

[1] Am. Jour. Med. Sciences, October, 1854.

[2] Western Lancet, February, 1856; and New-York Med. Times, March, 1856.

[3] Boston Med. and Surg. Jour. vol. xxxix. 1848.

[4] Boston Med. and Surg. Jour. January, 1851.

[5] Archives Générales, 1829, t. xx. p. 92, from Rust's Mag.; and North-American Med. and Surg. Jour. vol. viii.

within four or five of pubes; peritoneum opened four inches; tumor found to have a broad base, containing large, strongly pulsating vessels; adhesions to vertebral column; an incision caused hemorrhage, which could only be arrested by pressure; operation abandoned, and, after very severe symptoms, she recovered from it.

160. Dohlhoff, Magdeburg.[1] — Maria Bock; age, twenty-three; single; four years' growth; first symptom, suppression of menses, following tertian fever; during second year, had abundant epistaxis nearly every day. Operation, Sept. 27, 1836. Incision, four to six inches; cut out a piece of cyst, and removed the liquid with the hand and a cup; cyst, an inch thick; no adhesions; ligature around pedicle, and tumor of the left ovary, cystic and solid, thirty-eight pounds, removed; the ligature then removed, and the vessels tied separately; died, in thirty-six hours, of peritonitis, without re-action. The peritonitis, which was extensive, was not suspected before death, there being weak pulse, no pain, and great prostration.

161. Dohlhoff.[1] — E. R.; age, twenty-seven; menses regular since seventeen; married at twenty-four; never pregnant; four months' growth; size of six months' pregnancy, and very painful. Operation, Oct. 21, 1833. Incision, two inches above umbilicus to pubes; tumor very adherent; and the peritoneum and epiploon being strewn or covered[2] with little tumors, the size of a nut, and the vessels being very large, the operation was abandoned; died in eight hours. After death, it was impossible to remove the tumor whole. Though the operation was undertaken for diseased ovary, the tumor does not appear to have originated in either of them.

162. Dohlhoff.[1] — F. G.; age, twenty-three; first discovered after attack of tertian fever; menses regular; ten months' growth, and reaching above navel; very painful; had obstinate constipation, requiring three drops of Croton oil

[1] L'Expérience, from Rust's Mag.; Encyclographie des Sciences Médicales, t. xxx. [2] "Parsemées."

to move the bowels. Operation, September, 1836. Incision, five inches; no sign of tumor to be found! Recovered, after a severe attack of peritonitis. It was probably fecal accumulation; though he supposes it to have been spasm of the intestines, or an hysterical affection.

163. De Morgan, C.[1] — Age, twenty-five; single; three years' growth. Operation, Oct. 29, 1849. Small incision; delicate, compound cysts, with transparent contents; universal adhesions, and operation abandoned; in fourteen days, as large as ever; recovered from operation.

164. Emiliani.[2] — Dr. E. operated in 1815, by a small incision, with success. His son, Prof. E., of Modena, records the case, and says that she has since given birth to five children, two of whom were twins.

165. Elkington.[3] — Age, thirty-one; married fifteen months; menses irregular since two months before marriage; tapped once. Operation, 1849. Incision, twelve inches, and obliged to diminish the tumor before it could be removed; slight adhesions; ligature through pedicle; weight of tumor, forty pounds; recovered in about one month; no bad symptoms; in April, 1851, had a child.

166. Elkington.[3] — Mary B.; age, thirty-seven; two children; three years' duration; *tumor very movable;* tapped for ascites seven times in the six months preceding operation, which was in July, 1846. Tentative incision, and, no adhesions being felt, enlarged to six inches, when it was found to be adherent, by long, loose bands, to bladder, uterus, intestines, and abdominal parietes; operation abandoned; died, fourth day, of peritonitis.

167. Elkington.[3] — Mrs. L.; age, forty-seven; married twenty-six years; five children; eighteen years' growth; two children since tumor began. Operation, July 18, 1848.

[1] Robert Lee's Tables, loc. cit. communicated by Dr. West.

[2] Brit. and For. Med. Rev. vol. xx. from Bulletino delle Scienze Mediche di Bologna, December, 1843.

[3] Am. Jour. Med. Sciences, January, 1850, and October, 1851, from British Provincial Med. and Surg. Jour.

Incision not given, but probably long; extensive adhesions to parietes and omentum; tumor removed; died, in thirty-six hours, from "shock."

168. Erichsen.[1] — Age, sixty-five; right ovary; incision, five inches, below umbilicus; sac evacuated and extracted; slight adhesions; double ligature through pedicle; and, after dissecting off the peritoneal investment for a quarter of an inch all round, the ligature was tied; and the stump of the pedicle was then drawn up, and tied in the external wound; left her bed the sixteenth day.

169. Fries.[2] — Patient, size of full term of pregnancy. Operation, May, 1855, having aborted of a two-and-a-half months' fœtus six weeks before. Incision, ten inches; owing to adhesions, the operation[3] was abandoned after evacuating the sac. In eleven days, the wound burst open, with a fetid discharge. The sac was again emptied, and various injections — among others, nitrate of silver — were tried. Finally, the woman failing, the original operation, extirpation of the sac, was completed; the adhesions, which extended over one half of its surface, being easily detached. The wound did not unite; and, the nausea and diarrhœa continuing, she died seven days after extirpation.

170. Greenhow.[4] — Age, twenty-nine; married; menses irregular; menorrhagic, &c.; eighteen months' growth, with constant uterine discharge during that time; tapped two months before operation, followed by bloody discharge for a fortnight, with improvement of general health. Operation, Sept. 3, 1843. Incision, ensiform to pubes; adherent to omentum; double ligature through pedicle; also tied one vessel in omentum, and one in pedicle; left ovary, twelve pounds seven ounces, cystic; died, in six days, of exhaustion and peritonitis.

[1] Lancet, vol. ii. 1853.

[2] Western Lancet, March, 1856.

[3] See case 121, in which the operation, once abandoned, was completed on a second trial.

[4] Med. Chir. Trans. vol. xxvii. p. 88.

171. Galenzowski.[1] — Age, twenty-seven ; two years' growth ; right ovary ; menses regular ; size of seven months' pregnancy ; incision, five inches long ; completely adherent posteriorly ; sac incised, and three pounds of thick yellow fluid escaped ; a thread was passed through one side of the cyst, and brought out of wound ; a tent of charpie, dipped in oil, was then inserted ; several pounds of fluid oozed out, also three different portions of the cyst at different times ; at the end of seventy days, a small fistulous opening remained, by which pus still escaped.

172. Granville.[2] — Few details. Operation in 1827. Incision, nine inches and a half ; operation abandoned owing to extensive adhesions, and the patient recovered from it.

173. Granville.[3] — Age, thirty to forty (say thirty-five). Operation, March 21, 1827. Incision, nine inches ; found to be fibrous tumor of the uterus, which was removed, and weighed eight pounds ; died third day, — the operator says in consequence of venesection having been unnecessarily performed by the assistant ; but Dr. L. says there was inflammation and gangrene of the intestines.

174. Garrard.[4] — H. R. ; age, twenty ; unmarried ; seven months' growth ; size of eight months' pregnancy ; menses regular. Operation, April 25, 1855. Incision, umbilicus to pubes ; extensive adhesions ; cysts tapped ; ligature round pedicle of right ovary ; ligature came away in two months ; simple cysts, weighing fourteen ounces, measuring, when inflated, three feet two inches in the largest circumference.

175. Gross.[5] — Miss D. ; age, twenty-two ; menses regular ; eighteen months' growth ; tapped three gallons, two weeks before. Operation, June 19, 1849. Incision, three

[1] L'Expérience, see Encyclographie des Sciences Médicales, t. xxvii. ; also Lond. Med. Gaz. vol. v. 1829, from Graefe and Walther's Jour.

[2] Lond. Med. Gaz. vol. xxxi. 1843.

[3] Ibid. ; also New Monthly Mag. October, 1827 ; and Lee on Ovarian and Uterine Diseases, p. 86.

[4] Lancet, vol. ii. 1855.

[5] Western Jour. of Med. and Surg. 1853.

inches above umbilicus to pubes, one foot; right ovary, adherent, red and vascular; ligature around the pedicle, which was narrow, and, though tied "with great firmness," it came off after removal of the tumor. A large artery was secured, another ligature placed around the pedicle, and one of the divided bands of adhesion, which showed a disposition to bleed, was ligatured also; the menses appeared for two days, the thirteenth day; and, though the case had looked promising, she died, in four weeks, of peritonitis; encysted tumor, nine pounds.

176. Grimshaw.[1] — E. D.; age, thirty-seven; several children; one since disease began; had large ulcer in umbilical region, from distention; tapped eight times in eighteen months; four and a half gallons each time. Operation, Sept. 4, 1850. Incision, twelve inches; ascitic fluid escaped; adhesions; three ligatures to pedicle of left ovary; large quantity of blood lost during the operation; died, in five hours, of exhaustion; right ovary diseased also; not removed.

177. Gibson.[2] — Age, thirty-nine; prostitute; never pregnant; menses regular; growth not stated; tapped ten times in preceding nine months. Operation, March 10, 1850. Incision, from two and a half inches above umbilicus to symphisis; large quantity of ascitic fluid escaped; extensive adhesions, and operation abandoned; died twenty-fourth day; post mortem, malignant disease of both ovaries.

178. Groth[3] extirpated left ovary; ligature around a pedicle three quarters of an inch thick; died, in sixteen hours, of hemorrhage, and two pounds of blood found in abdomen.

179. Hawkins.[4] — Age, twenty-seven; unmarried; four years' growth; menses regular. Operation, Sept. 22, 1846.

[1] Phil. Med. Examiner, November, 1850.

[2] Stethoscope, and Virg. Med. Gaz. February, 1851.

[3] L'Expérience, see Encyclo. des Sciences Med. t. xxvii. and xxx. from Pfaff's Journal.

[4] Lond. Med. Gaz. vol. xxxviii.

Incision, three inches; cyst evacuated, and drawn through; double ligature through pedicle; another around; had an attack of phlebitis; ligatures had fallen, and wound entirely healed, on the twenty-eighth day.

180. Heath.[1] — Age, forty-six; single; never pregnant; excessive menorrhagia for four years; twelve months' growth; Operation, Nov. 21, 1843. Incision, from epigastrium to pubes, and found to be a fibrous tumor of the uterus; double ligature through the cervix uteri; died, in seventeen hours, of hemorrhage from the cut surface, though the ligature remained tight (?); weight, six pounds.

181. Hayny.[2] — After abdomen was opened, such extensive adhesions were found as to render the operation impracticable; died, exhausted, the fourth day.

182. Hayny.[2] — Tumor removed, with a portion of adhering omentum; after several attacks of peritonitis, died at end of six weeks; both these operations unskilfully performed, says the reviewer.

183. Hargraves.[3] — A. B.; age, forty; adhesions; operation abandoned; died in five days.

184. Holston.[4] — Age, twenty-seven; single; three years' growth; menses regular. Operation, Oct. 12, 1855. Incision, between umbilicus and pubes, seven to eight inches; cyst of left ovary tapped and extracted; looked like calf's stomach prepared for rennet; double ligature through pedicle; wound contracted to four inches; weighed twenty-six pounds; cyst contained one pint blood. She went home nineteenth day.

185. Howard.[5] — R. J.; age, seventeen; single; five months' growth; menses ceased for three months; tapped twice in preceding month. Operation, Oct. 14, 1852. Incision, three inches above umbilicus to pubes; no adhesions;

[1] Lond. Med. Gaz. vol. xxxiii. 1843.

[2] Brit. and For. Med. Rev. vol. xxiii. 1847.

[3] Lancet, October, 1839, reported by Mr. Gorham; also R. Lee's and Jeaffreson's Tables.

[4] Western Lancet, December, 1855.

[5] Am. Jour. Med. Sciences, April, 1853, from Ohio Med. and Surg. Jour.

dissected the peritoneum from pedicle to apply ligature; no bad symptoms; recovered in eight weeks; calls attention to method of applying ligature, as something new. (See Van Buren, 281.)

186. Howard.[1] — H. M.; age, twenty-eight; married; four children, two of them since tumor began; five years' growth; left ovary; tapped twice in previous nine months. Operation, October 26, 1852. Incision, umbilicus to pubes; owing to adhesions, extirpation abandoned; excised a portion of cyst, and introduced a tent; discharge soon became very offensive, and she died, in seventeen days, of "exhaustion" [probably gangrenous inflammation of cyst, and peritonitis].

187. Handyside.[2] — Jessy Fleming; age, twenty; twenty months' growth; tapped ten times; menses irregular. Operation, Sept. 5, 1845. Large incision; principal tumor was in left ovary, but both were diseased and removed; had slight pneumonia, also phlebitis, which subsided; in twenty-five days, she had, from imprudence in diet, an attack of ileus, of which she died, seventy days after the operation; both tumors encysted.

188. Handyside.[3] — Mrs. P.; age, thirty-eight; married; five children; one year's growth; tapped four times. Operation, Sept. 3, 1846. Incision, four inches; both ovaries removed; ligatures carried through recto-vaginal cul de sac into vagina; died of peritonitis; cysts weighed ten pounds.

189. Jeaffreson.[4] — Mrs. B.; two children since growth began. Operation, March, 1836. Incision, one and a half inch; cyst evacuated, and, after slight extension of the incision, extracted; ligature around pedicle, and cut close; lac-

[1] Am. Jour. Med. Sciences, April, 1853, from Ohio Med. and Surg. Jour.; also Ranking's Abs. 1853.

[2] Lond. and Edin. Month. Jour. vol. i. 1846, p. 446; and Edin. Med. and Surg. Jour. vol. lxv.

[3] R. Lee's Tables, No. 86, from the operator.

[4] Lancet, January, 1837.

tation uninterrupted; recovered, and had several children since.[1] Dr. Lee says it was the left ovary.

190. Key, C. Aston.[2] — E. D.; age, nineteen; health good; menses regular every two weeks; fifteen months' growth. Operation, Aug. 1, 1843. Incision, from ensiform to pubes; no adhesions; a good deal of ascitic fluid escaped; double ligature through pedicle; died, Aug. 5, of peritonitis. Both ovaries would appear to have been diseased and removed.

191. King.[3] — Three years' growth; tapped several times; short incision (?). The operation appears to have been abandoned, owing to escape of omentum from the wound; recovered from the operation; died, a few months afterward, from exhaustion, when the tumor was found to be an enlarged mesenteric gland.

192. King.[3] — Puttock; age, forty. Operation, March, 1834. Incision, vertical and seven or eight inches long on right side of umbilicus, and another, of four inches, at right angles, extending toward spine. After twenty minutes' search, unable to find the tumor! had a sharp attack of peritonitis, but recovered; two years after, was better than before operation, though the tumor had grown one-quarter. There appears to be no doubt that there was a tumor while she was in the erect position, which escaped under "the concavity of the liver," or elsewhere, when she was in the recumbent posture.[4]

193. King.[5] — Cavell; age, forty; six years' growth. Operation, July 12, 1836. Tentative incision; sac evacuated, and opening enlarged to three inches; sac drawn through;

[1] Lancet, November, 1843.

[2] Guy's Hospital Reports, October, 1843, p. 477.

[3] Lancet, January, 1837.

[4] Since this was written, I have seen a case, pronounced by the attendant to be ovarian, in which the tumor, the size of two fists, very hard, smooth, and movable while the patient was erect or lying on the left side, escaped invariably upwards, and beneath the liver, *entirely out of reach*, if the patient turned on her back. It was sufficiently easy to decide that it was not ovarian, less so to say what it was.

[5] Lancet, January, 1837.

the ligature around the pedicle slipped off after division of tumor, when three vessels were tied, and cut short; able to be down stairs in a week.

194. Kimball.[1] — Age, twenty-five; unmarried; seven years' growth; menses regular. Operation, March, 1855. Incision, from umbilicus to pubes; sac evacuated and drawn through; no adhesions; double ligature through pedicle, and another around it; rode out in thirty-six days, though the ligature had not come away.

195. L'Aumonier.[2] — Marie Louise Lagrange; prostitute; age, twenty-one; the disease apparently followed delivery; exhausted from colliquative diarrhœa; had obstinate diarrhœa, and purulent discharge from vagina increased by pressure on the tumor. Incision, four inches, along lower edge of obliquus externus, and a scirrhous ovarian cyst, the size of an egg, was found in connection with an abscess, which was tapped; and a pint of dark fetid pus issued from the Fallopian tube, with which the ovarian abscess communicated. The adhesions were torn away between the tube and ovary, and the latter removed. No ligature used, though there was some hemorrhage from a branch of the spermatic artery. The cavity of the tubular abscess was filled with lint, dipped in the yolk of an egg and in honey, with cataplasms over the whole, the external wound not being closed. The intestines were so strongly adherent to each other and to the peritoneum, as to retain their place without protrusion through the wound. She was very low until the sixteenth day, when cerebral symptoms arose, which ceased on the appearance of the menses. Suppuration from the abscess ceased the twentieth day; and she left the hospital, well, Feb. 20, the operation having been performed Jan. 5, 1782.

196. Lizars.[3] — Age, twenty-nine; married; one child;

[1] Boston Med. and Surg. Jour. vol. lii. 1855.

[2] Mémoires de la Société Royale de Médecine, 1782, p. 296; also Lond. Med. Gaz. vol. xxxv.; Jeaffreson's Table; and Brit. and For. Med. Rev. October, 1843, p. 393.

[3] Edin. Med. and Surg. Jour. 1824, vol. xxii.

in 1815, miscarried, and abdomen began to enlarge; in 1817, a lumbar abscess was opened in left groin, without diminution in size of abdomen; twice tapped for ovarian dropsy by competent physicians; menses continued, though painful. Operation, Oct. 24, 1823. Incision, two inches, from ensiform to pubes, and the uterus and ovaria found to be perfectly healthy! Sat up in bed fourteenth day, and, twenty-third day, went to the country. Great obesity, and distention of intestines, with anterior curvature of the lumbar vertebræ, are the reasons assigned for the error!

197. Lizars.[1] — Age, thirty-six; six years' growth. Incision, ensiform to pubes; a gallon and a half of ascitic fluid escaped (no adhesions apparently); ligature around the pedicle, afterwards transfixing the latter on the distal side to prevent slipping. The other ovary was also enlarged, adherent to parietes, brim of pelvis, and uterus, but was not disturbed. She recovered.

198. Lizars.[1] — Age, twenty-five; one year's growth. Operation, March 22, 1825. Incision, sternum to pubes; strongly adherent to parietes, colon, and brim of pelvis; ligature around pedicle, and, after division, three vessels tied separately; died, in fifty-six hours, of peritonitis.

199. Lizars.[2] — Magdalen Berry; age, thirty-four; single; six years' growth; irregularity and final cessation of catamenia. Operation, April 24, 1825. Incision, sternum to pubes; omental blood-vessels enormously enlarged, looking like placenta, and so adherent to the tumor as to require abandonment of the operation; tumor was incised, and found to be solid and cartilaginous; violent inflammation ensued; a hundred and sixteen ounces of blood were drawn in thirty-six hours, and opiates given freely; recovered, and lived twenty-five years; post mortem, fibrous tumor from the fundus uteri. Both ovaries small, and in their proper position.

[1] Edin. Med. and Surg. Jour. vol. xxiv. 1825.

[2] Ibid.; also Lond. and Edin. Monthly Jour. Med. Sciences, vol. i. 1851.

200. Larrey, Hyppolite.[1] — Age, thirty-three; began after a third labor; after various attacks of inflammation, spontaneous rupture took place a little below the umbilicus, and gave issue to pus and hair; pus, hair, and fragments of bones, also escaped by the urethra. Operation, 1846. By abdominal incision, he removed a pediculated tumor; found a fistulous communication existing with the bladder, through which, at the same time, a calculus was removed. In spite of an attack of confluent variola the fifteenth day, she eventually recovered.

201. Langenbeck.[2] — Age, thirty-four; unmarried; five years' growth; size of full term. Incision, two inches and a quarter, just above symphisis; cyst evacuated of nine quarts of clear, coagulable fluid; no adhesions; sac pulled out until the pedicle was clearly exposed; incision closed by sutures; then a double ligature through the pedicle, and another *through the pedicle and lips of the wound, to keep it from receding*, after which the pedicle was divided and tumor removed; recovered in nine weeks, during which time was troubled with colicky pains.

202. Lyon.[3] — Age, thirty-one; unmarried; two years' growth; tapped three times. Operation, April 5, 1850. Incision, three inches, between pubes and umbilicus; cysts evacuated; incision enlarged a little, and adhesions separated by fingers; sac drawn through, and ligature placed around the pedicle; right ovary; died next day.

203. Lane.[4] — Operation, Nov. 19, 1843, Miss ——; age, twenty-eight; no adhesions; incision, five inches; cyst removed; recovered, and had children afterwards.

204. Lane.[4] — Operation, Feb. 15, 1844. Mrs. L.; age, forty-seven. Incision, eight inches; firm adhesions; cyst

[1] Revue Médicale, t. xcvi. p. 138.

[2] Lond. and Edin. Monthly Jour. vol. ii. 1854, from the Deutsche Klinik, 1853.

[3] Ranking's Abstract, vol. i. 1853, from Glasgow Jour. of Medicine, July, 1853.

[4] This and the following cases were communicated by Dr. Lane to Dr. Lee. (See Dr. Lee's Tables, loc. cit., also Mr. T. S. Lee's and Mr. Jeaffreson's Tables, for some of them.)

removed; recovered; died, two years after, of stricture of rectum.

205. Lane.[1] — Operation, Feb. 15, 1844. Mrs. ——; age, forty-three; adhesions; long incision, seven inches; cyst partially removed; recovered; lived five or six years.

206. Lane.[1] — Operation, Nov. 21, 1844. Miss P.; age, twenty; no adhesions; cyst removed; recovered.

207. Lane.[1] — Operation, September, 1845. Mrs. W.; age, forty; large incision; universal adhesions; cyst mostly removed; a small portion left adherent to renal capsule; died, third day, of peritonitis.

208. Lane.[1] — Operation, 1845. Miss T.; age, thirty-nine; no adhesions; cyst removed; had pelvic abscess; recovered.

209. Lane.[1] — Operation, November, 1846. Miss A.; age, thirty-one; after incision, unable to remove the cyst (no reason given); recovered; died, two years after, from an attempt to produce suppuration in the cyst.

210. Lane.[1] — Operation, April 24, 1847. Mrs. P.; age, forty; solid tumors and ascites; small incision; operation abandoned from adhesions; recovered from operation in two days.

211. Lane.[1] — No date or name. Incision, from umbilicus to pubes, revealed a large, solid tumor, too much connected with the uterus for removal. She recovered from the operation, and was able to walk about, but died suddenly, five weeks after; post mortem, no cause of death was discovered, unless it were disease of heart; no signs of peritoneal inflammation. [Dr. Lee ranks this among the deaths, which is evidently wrong.]

212. Lane.[1] — Operation, Oct. 15, 1848. Miss D.; age, fifty-four; universal adhesions prevented the removal of the cysts, and the operation was abandoned; recovered; two years after, suppuration produced in three or four of the cysts; living in 1853.

[1] See last note on preceding page.

213. Lane.[1] — Operation, November, 1849. Miss H.; age, twenty-four; inflammation of the cyst produced, and followed by cure, though the tumor was not removed.

214. Litzenberg.[2] — Mrs. J. R.; two years' growth; tapped twice for diagnosis of adhesions. Operation, May 22, 1855. Incision, eighteen inches, through linea alba; universal adhesions; right ovary multilocular, holding three gallons; pedicle cut long, after passing a double ligature through it, and ligatures and stump *fastened in the external wound;* opium freely used, and rectum tube for flatulence; in twenty-two days after the operation, returned to her home, well, and wound closed.

215. McDowell, Kentucky.[3] — Mrs. Crawford. Operation, December, 1809. Incision, on left side, three inches from and parallel to rectus, nine inches long; ligature around pedicle; tumor opened, and fifteen pounds of gelatinous substance removed; pedicle divided, and sac extirpated; whole weighed twenty-two pounds and a half; in five days, the report states, she was able to make her bed, and, in twenty-five days, she went home.

216. McDowell.[3] — Negress. After three or four years of mercurial treatment, incision was made, as in previous case; adhesions to bladder and uterus preventing its removal, the tumor was incised, and gelatinous matter and a quart of blood escaped; recovered from the operation; in two years, the tumor was as large as ever.

217. McDowell.[3] — Incision, in linea alba, an inch below umbilicus to within an inch of pubes; ligature around pedicle; incision extended two inches above umbilicus, and a "scirrhous ovarium," weighing six pounds, removed. She was well in two weeks, with exception of the ligature, which fell in five.

218. McDowell.[3] — April 1, 1817. Incision as in last case;

[1] See last note on page 73.

[2] Western Lancet, March, 1856.

[3] North-American Med. and Surg. Jour. vol. i. p. 35; and Am. Jour. of Med. Sciences, January, 1845, from Eclectic Repertory, 1817 and 1819.

ligature slipped, followed by profuse hemorrhage; vessels tied separately; some of them were cut through by the ligature; finally passed a ligature around the pedicle again, and stitched it down; recovered from the operation, but was not in good health afterwards.

219. McDowell.[1] — Negress; had been under the treatment of others for eighteen months, with supposed ascites; treatment continued a while; she was then tapped, and thirteen quarts of gelatinous fluid removed; in two months, tapped again, and then discovered the tumor; in a few months, was tapped the third time, when the incision was enlarged sufficiently to introduce a finger to settle the diagnosis; tapped a fourth time, shortly before the operation. Length of incision not mentioned; tied the pedicle, also a band of uterine adhesions, and removed the tumor; sixteen quarts of gelatinous fluid discharged from piliferous cyst of left ovary; died, in three days, of peritonitis.

220. Martini.[2] — Age, twenty-four; children; four times tapped, little fluid following; after last tapping, injected four pints of tepid alcohol and water, and inserted tent; the wound, however, seems to have closed immediately. Operation for removal. Incision of nine inches, and found a solid tumor, size of man's head, firmly adherent to bladder, rectum, and brim of pelvis; after removing a small sac from the surface of the tumor, containing a pound of serum, the operation was abandoned; large quantities of bloody serum escaped through a canula left at the lower angle of the wound; died, in thirty-six hours, from this serous waste and hemorrhage; left ovary.

221. Morgan.[3] — Operation in Guy's Hospital, 1839. Age, twenty-six; small incision; adhesions; operation aban-

1 North-American Med. and Surg. Jour. vol. i. p. 35; and Am. Jour. of Med. Sciences, January, 1845, from Eclectic Repertory, 1817 and 1819.

2 Archives Générales, t. xx. 1829, p. 96, from Rust's Mag. and Lond. Med. Gaz. 1829.

3 Lancet, October, 1839, reported by Mr. Gorham; also Phillips's and Lee's Tables. This is the same as the "Guy's Hospital" case, so called.

doned; died in forty-eight hours; autopsy revealed a second cyst in connection with the first.

222. Mussey.[1] — Mrs. Sly; age, forty; thirteen children; two years' duration; menses uninfluenced by tumor; left ovary. Operation, July, 1828. Incision, umbilicus to pubes; mesocolon spread over tumor, and firmly adherent; *transverse colon also crossed in front of tumor*, and firmly adherent to it, between umbilicus and pubes; cyst tapped, four or five pints of turbid fluid drawn, and extirpation abandoned; tent inserted, and, in a few days, discharge became purulent, and continued for three weeks; then the opening closed, and, in a few weeks more, she was entirely well; in a year, gave birth to fourteenth child. The adhesions of the deeper layers of the parietes were so imperfect as to necessitate the wearing of a laced waistcoat.

223. March.[2] — Mrs. P.; age, forty-nine; five children; last, seven years old; three years' growth. Operation, Dec. 18, 1849. Incision, four inches above navel to pubes, about twelve inches in all; no adhesions; cysts evacuated, and drawn through; monolocular sac of right ovary; ligature around pedicle drawn with great force, and with assistance also of another person; yet, after division of pedicle, the ligature became detached, with resulting hemorrhage from vessels, of the size of a crow-quill; a double ligature was then passed through the pedicle, and, this being insufficient, a second one also, during which processes a pint of arterial blood escaped into abdomen; in six hours, re-action was established with difficulty; flatulence relieved by tube in rectum for some days; recovered in thirty-four days; weight estimated at eighteen pounds; recommends carrying ligature into vagina.[3]

224. Miller, Kentucky.[4] — Age, thirty-seven; few months' growth [probably about one year]; tapped previous week.

1 Am. Jour. Med. Sciences, vol. xxi. 1827.

2 Am. Jour. Med. Sciences, January, 1851.

3 See Handyside's case, No. 188.

4 Philadelphia Med. Examiner, September, 1848, from Western Jour. of Med. and Surg.

Operation, April 6, 1848. Incision, umbilicus to pubes; adhesions; two of the cysts tapped to reduce the size; tumor drawn out, and single ligature passed through pedicle; tumor removed, and remaining vessels of broad ligament secured separately; weight, nine pounds and a quarter; last ligature came away thirty-first day; recovered.

225. Meeker, Indiana.[1] — Mrs. S.; age, thirty-two; two years' growth; had also right inguinal hernia; tapped repeatedly; great pain; hectic; night-sweats. Incision, ensiform to pubes, twenty-one inches; extensive adhesions; some ascitic fluid; right ovary; double ligature through pedicle; died, in six hours, of hemorrhage from pedicle, one half of ligature having slipped; weight, forty pounds eight ounces.

226. McRuer.[2] — Mrs. Rafferty; age, twenty-eight; three children; fifteen months' growth, following parturition; tapped one month previously; greatly distended; vaginal prolapsus. Operation, Jan. 20, 1853. Incision, ensiform to pubes; adhesions to omentum; cyst evacuated; double ligature through pedicle, and several to omental vessels; no bad symptoms; wound healed, and able to sit up half a day at end of three weeks.

227. Mercier.[3] — Age, twenty-eight; four children; last, three years since; has had ascites, supposed to depend on ovaritis; one year's growth; menses ceased; tapped seven times in six months, five or six gallons each time; diagnosis lay between extra-uterine pregnancy and encysted ovary. Operation, Dec. 17, 1854. Incision, nine inches, from lower ribs to external edge of rectus muscle; strong adhesions; tumor evacuated by incisions, turned out, and ligatured around pedicle; weight, six pounds; fibro-cartilaginous; ligature fell thirteenth day; and at time of report, seventeenth day, was sitting up.

[1] Boston Med. and. Surg. Jour. vol. xxxix. 1848.

[2] Boston Med. and. Sur. Jour. February, 1853.

[3] Glasgow Med. Jour. October, 1855, from New-Orleans Med. and Surg. Jour. January, 1855.

228. Morris.[1] — Operation, 1843. Long incision; cyst removed; recovered.

229. Mott, New York.[2] — Mrs. ——; circus-rider; age, thirty-five; left ovary encysted; malignant; portion of tumor adherent in pelvis, and could not be removed; death, third day, from peritonitis.

230. Mott, New York.[2] — Miss ——; maiden; forty; pedunculated; non-adherent; fibrous tumor of the ovary; good case in every respect; death, fifth day, of peritonitis.

231. Norman.[3] — Age, twenty-three; vaginal prolapsus; menses regular; had used iodine internally and externally. Operation, Nov. 8, 1850. Incision, five inches; *small intestine adherent for two inches on anterior face of the tumor*, and general adhesions to surrounding parts. Operation abandoned; recovered in three weeks; in a fortnight, tumor began to decrease, supposed from obliteration of nutrient vessels, in consequence of inflammation excited by the operation. — [See Tanner's proposal, p. 27.]

232. Phillips.[4] — Age, twenty-three; nine months' growth. Operation, Sept. 9, 1840. Incision, one inch and a half; sac emptied of three hundred and thirty ounces of glairy fluid; sac very thick; external incision enlarged to two inches and a half; no adhesions; ligature around pedicle (which was formed by Fallopian tube), and cut close; died, fourth day, of exhausting diarrhœa. Right ovary removed; left also diseased.

233. Potter.[5] — Age, thirty-six; married; one child; menses ceased past two months; two tumors, one on each side; one of them, of six years' growth, had been tapped, and three quarts jelly-like fluid drawn; auscultation revealed friction sound on left, none on right side. Operation, March

1 From Jeaffreson's, Phillips's, Dr. Lee's, and T. S. Lee's Tables.

2 Communicated by Dr. Van Buren. (See note to No. 281.)

3 Am. Jour. Med. Sciences, April, 1851, from Brit. Prov. Med. and Surg. Jour.

4 Lond. Med. Gaz. vol. xxvii. 1840; and his Tables, in Med. Chir. Trans.

5 Lond. Med. Gaz. vol. xli. 1848.

21, 1848. Incision, ensiform to pubes; general adhesions; ligature through pedicle of left ovarian cyst, and arteries tied also; the right tumor, very adherent, was tapped and evacuated, ligatured as low down as possible, and upper two-thirds cut away; ligature slipped, but the vessel was soon secured; fourth day, wound united; separated again, however, and she died, sixteenth day, of peritonitis.

234. Peaslee.[1] — Age, twenty-five; single; fifteen months' growth; left ovary; menses regular; feeble and emaciated; has had hydragogues, diuretics, and iodine ointment; tapped ten days previously. Operation, Sept. 21, 1850. Incision, nine inches, beginning two inches above umbilicus; slight adhesions; sac evacuated, double ligature through its pedicle; and, after its removal, a cyst of the right ovary was discovered, the size of a pullet's egg; after passing a double ligature through its pedicle, it also was removed; last ligatures came away in two months; in seventy-two hours, the menses returned for three days, supposed to be merely uterine hemorrhage from congestion, in consequence of the operation. She was a niece, by marriage, of N. Smith's patient.

235. Peaslee.[2] — Age, twenty-six; four years' growth; has been subjected to salivation; iodide of potass., and bandaging; tapped eight times in fifteen months, and, in one case, nearly thirteen gallons of ascitic fluid drawn; tumor recognized after first tapping; menses irregular; there was vaginal protrusion, and the last three tappings were in this situation; at the last tapping, three days before operation, the canula was left in. Operation, Feb. 12, 1855. Incision, eleven inches; slight adhesions to omentum divided, *one of them containing a small artery;* double ligature through pedicle of right ovary; ligatures of omental vessel brought out of the wound; those from the pedicle were carried, by side of

[1] Am. Jour. Med. Sciences, April, 1851; and Boston Med. and Surg. Jour. July, 1851.

[2] Am. Jour. of Med. Sciences, January, 1856.

canula, into vagina; peritonitis followed, and, the sixth day, there was dark, fetid suppuration; a quart of "artificial serum"[1] was injected repeatedly for several days, with great relief each time; the fetid discharge continued for three weeks; wound healed in six weeks; menses had not returned at end of nine months.

236. Peaslee.[2] — Age, thirty-five; widow; four children; eighteen months' growth, following parturition; diagnosis, non-adherent cyst of *right* ovary. Operation, September, 1853. Incision, four inches, exposed what was taken for a dense sac; but, on puncture, a few drops of blood only appeared, and it proved to be continuous with fundus uteri; owing to bleeding from the puncture, the operation could not be abandoned; the incision was extended, a double ligature passed through the attenuated lower portion of the organ, which, with the *left ovary*, was removed; died, in five days, of peritonitis; fibrous tumor of uterus. The fluctuation was very deceptive, even after the tumor was exposed.[3]

237. Prince.[4] — Age, twenty-five; married; eighteen months' growth; had children; menses irregular. Operation, Dec. 25, 1847. Incision, three inches, below umbilicus; adhesions; solid tumor of right ovary; extirpation abandoned; tumor incised, and part of its internal portions removed; but slightly vascular; tent inserted; purulent discharge continued a long time; eventually recovered, and gave birth to a child, April 10, 1849.

238. Prince.[5] — Mrs. Simpson; age, forty; sterile; four years' growth; menses "never materially deranged;" diagnosis, ovarian tumor, probably solid in whole or in part. Operation. Incision, two inches, between umbilicus and pubes; tumor tapped, a few drops of blood only issuing, though pierced in various directions, the substance breaking

[1] Alb. ovi, ʒ vj; sod. chlorid., ʒ iv; aquæ, Ovj.
[2] Am. Jour. Med. Sciences, April, 1855.
[3] See Parkman's case.
[4] Am. Jour. Med. Sciences, July, 1850.
[5] Am. Jour. Med. Sciences, October, 1852.

down with a crackling sound; was also cut into, and torn by the finger; tent introduced, in hope of destroying the tumor by suppuration, as in his other case; very comfortable for four days; fifth day, sudden prostration and death; post mortem revealed a *large pediculated tumor of the spleen*, loosely adherent, anteriorly, to the abdominal parietes; uterus and ovaries normal; no peritonitis; immediate cause of death not recognized. It is proper to state, that the error of diagnosis was due, in a great measure, to the imperfect or inaccurate information given by the patient as to the history of its growth in the earlier stages.

239. Parkman, S.[1] — Age, twenty-seven; single; one year's growth; menses regular. Operation, Jan. 8, 1848; had been previously tapped by her surgeon in the country, no fluid following. Incision, from half way between ensiform and umbilicus, to pubes; ascitic fluid escaped; tumor tapped, no fluid came; no adhesions; on being then raised, found to be a fibrous growth, involving the entire fundus of the uterus; ligatures through and around the lower part of this organ, and drawn with great force; died, in twelve hours, of hemorrhage from contraction of the tissues enclosed in ligatures; both ovaries sound, and tumor weighed eight pounds thirteen ounces. The fluctuation was very deceptive, even after its removal.

240. Parkman.[2] — Mrs. D.; age, forty-one; married twice; two children; two miscarriages; menses regular; eighteen months' growth. Tapped for diagnosis before operation, which was performed Aug. 30, 1851. Incision, umbilicus to pubes; no adhesions; operation abandoned, as no pedicle was found! From the report, I presume that the broad ligament was spread out over and adherent to the base of the cyst. Recovered from operation without a bad symptom; two months after, there was an evident appearance of refilling of the cyst.

[1] Am. Jour. Med. Sciences, April, 1848.
[2] Boston Med. and Surg. Jour. December, 1851.

241. Page.[1] — Agnes G.; age, thirty-three; married; two children; one miscarriage, six years since; two years' growth; menses regularly every three weeks since tumor began. Operation, Aug. 19, 1844. Tentative incision, two inches; ascitic fluid escaped; incision extended to four inches; cyst evacuated, and drawn out; no adhesions; ligature around pedicle fell in twelve weeks; weight, five pounds and a half; menses regular since operation.

242. Page.[2] — Catharine McC.; age, thirty-nine; married; nine children, six of them still-born; last, seven years ago; fifteen months' growth, following menstrual suppression from exposure to cold; menses returned last three months; *tumor movable.* Operation, July 27, 1846. Tentative incision, an inch and a half; ascitic fluid escaped; incision extended to two inches and a half and three inches; cyst evacuated, drawn partly out, and found to be firmly adherent to several inches of intestine, and its "*extended base*" very adherent to surrounding parts; extirpation was abandoned, and most of the sac included in a ligature and removed, leaving the base behind; after great suffering, died, in thirty-six hours, of hemorrhage from the partially detached ligature; most of the adhesions were posterior, hence its movability.

243. Paget.[3] — Age, twenty-four; one child; tapped twenty-five days before. Operation, 1850. Incision, three inches; sac seized, but ruptured, and five gallons of pure pus escaped; universally adherent; edges fastened to the external wound, and the operation abandoned; died in ninety-six hours.

244. Quittenbaum, or Kittenbaum.[4] — Tapped twice in seven weeks; long incision; well tenth day.

245. Rogers, D. L., New York.[5] — Age, twenty; single;

[1] Lancet, vol. i. 1845.

[2] Lancet, vol. ii. 1846.

[3] Dr. Lee's Tables, from the operator.

[4] Revue Médicale, 1836, t. lx. p. 244; and Brit. and For. Med. Rev. 1843, p. 395.

[5] New-York Med. and Physical Jour. vol. ix. 1830; and Lond. Med. Gaz. 1829.

tapped seven times, and eighteen gallons removed; tumor discovered after sixth tapping; two years' growth, commencing with suppression of menses; had been accused of pregnancy. Operation, Sept. 14, 1829, after removal of two gallons gelatinous fluid (seventh tapping). Incision was made from ensiform to pubes; thickened sac found, filling abdomen, and so closely adherent that portions of peritoneum were removed; two hours' dissection; ligatures cut close; solid and cystic, three pounds and a half; in two weeks, sitting up; in four weeks, wound healed; and, in six weeks, menses had returned, and she was well.

246. Ritter, reported by Ehrhartstein.[1] — Agathe Duerr; age, thirty-one; five children; began during fifth pregnancy, abdomen not subsiding after delivery; fluctuation in *left* iliac region. Ritter was then consulted, and diagnosed extra-uterine pregnancy and ascites; tapped twice, and tumor found to be in *right* ovary. Operation, eighteen weeks after delivery. Incision appears to have been transverse, dividing the rectus, and turning it down; large incision; peritoneum opened enough to introduce the hand, and, though adherent, tumor was removed in fifteen minutes; three ligatures to bleeding vessels; nothing said of pedicle; peritonitis ensued, and, the eighth day, there was an abundant discharge from the wound; the lacteal secretion ceased for six or seven weeks, the peritoneal secretion becoming milky; recovered in nine weeks; lardaceous tumor of right ovary, twelve pounds.

247. Smith, Nathan.[2] — Age, thirty-three; seven years' growth; married; five children, three of them since discovery of tumor; ruptured spontaneously three times, — twice during pregnancy, and once from a fall; right ovary. Operation, July 5, 1821,[3] youngest child ten months old, and

[1] Archives Générales, t. i. 1833, p. 427; and Brit. and For. Med. Rev. October, 1843, p. 395; also Med. Chir. Rev. July, 1833.

[2] Med. and Surg. Memoirs of, edited by his son, Baltimore, 1831; also Edin. Med. and Surg. Jour. v. 18, p. 532.

[3] Dr. Peaslee says that he was told, by one present at the operation, that it was July, 1820. (See Am. Jour. Med. Sciences, April, 1851.) The original report in Edin. Jour., above cited, says 1821.

nursing at the time. Incision, below umbilicus, three inches long; sac emptied of eight pounds of fluid; sac drawn through; adhesions to epiploon separated with knife; skin ligatures to two omental arteries, and, after division of pedicle, two more ligatures; adhesions to abdominal parietes separated by knife and fingers; no bad symptoms; recovered in three weeks.

248. Smith, Nathan.[1] — Operation previous to above. After incision, the uterus was found to be involved, and to constitute the largest part of the tumor; operation abandoned. [I presume she recovered, as nothing is said to the contrary.]

249. Smith, Nathan.[1] — Sac exposed by incision; had been tapped previously two or three times; punctured, and contents discharged; adhesions so extensive that the wound was closed; after slight peritonitis, it healed; in three or four weeks, the sac refilled, the ascitic fluid re-accumulated, and the patient died. [I have put this down as *recovery* from the *operation.*]

250. Southam.[2] — Age, thirty-seven; five children; two years' growth, following parturition; menses regular. Operation, Oct. 12, 1843. Incision, nine inches; one gallon ascitic fluid escaped; adhesions to omentum; left ovary; double ligature through pedicle; able to walk about room in one month; ligatures slipped into abdomen, and could not afterwards be found; cystic sarcoma of left ovary, weighing four pounds twelve ounces. She continued well, January, 1847.

251. Southam.[3] — Age, thirty-eight; married; left ovary; eight years' growth. Tentative incision; no adhesions found, and incision enlarged to six or seven inches; sac evacuated, and ligature around pedicle; thirteenth day, moved a distance

[1] Med. and Surg. Memoirs of, Baltimore, 1831, p. 231.

[2] Lond. Med. Gaz. vol. xxxiii.; and Brit. and For. Med. Rev. January, 1847, p. 297.

[3] Lond. Med. Gaz. vol. xxxvii. from British Prov. Med. and Surg. Jour. 1845.

of three miles; ligature came away forty-ninth day; unilocular cyst, thirty-one pounds.

252. Southam.[1] — Age, twenty-six; married; five children; youngest, thirteen months old; tumor, ten months' growth. Tentative incision, three inches, enlarged above and below; fibrous and cerebriform tumor removed, weighing nine pounds; ovary not mentioned; died seventh day; lower lobes of lungs inflamed. [I have entered this as pneumonia.]

253. Southam.[2] — Exploratory operation, intending to leave permanent opening if extirpation was found impracticable from adhesions. This proved to be the case. Recovered from the exploratory incision without a bad symptom. The alternative operation, however, was fatal, suppuration of the cyst (which was multilocular) causing violent irritative fever. [Dr. Lee reports this as fatal. I have done so in the table of cases of "permanent opening;" but here it ought to be recovery from an operation abandoned.]

254. Solly, S.[3] — Age, twenty-four; unmarried; menses at sixteen, and always regular; period of growth not stated. Operation, June, 1, 1846. Incision, three inches; sac evacuated, and drawn through; no adhesions; double ligature through pedicle of right ovary, tied firmly; died, of hemorrhage, in eleven hours; left ovary found to be enlarged.

255. Smith, Henry.[4] — M. W.; age, twenty-three; prostitute; seduced at fourteen; four children; now size of six months of pregnancy; no anasarca; pain in left iliac region. Operation, 1854. Incision, eight inches, umbilicus to pubes, and ovaries found to be sound! Swelling due to thickened and indurated omentum; recovered in twenty-one days.

256. Stilling.[5] — Age, twenty-two; single; three and a half years' growth. Operation, April, 1841. Incision, four

[1] Lond. Med. Gaz. vol. xl. 1847, from Trans. of British Prov. Med. and Surg. Assoc. vol. iii.

[2] Dr. Lee's Table.

[3] Lond. Med. Gaz. vol. xxxviii.

[4] Phil. Med. Examiner, January, 1855.

[5] Brit. and For. Med. Rev. vol. xiii. p. 547, from Hannoversche Annalen, 1841.

inches; tumor punctured and evacuated; incision enlarged to six inches; no adhesions; tumor of right ovary drawn through; ligature around pedicle; died, in three days, of hemorrhage from pedicle.

257. Smith, Protheroe.[1] — Age, thirty-nine; complicated with chronic peritonitis; large incision; no adhesions; multilocular; twenty pounds solid, ten fluid; died, in four hours, of shock. Operation, 1846.

258. Stockwell, F. G.[2] — Hannah Hiscox; age, twenty; two years' growth; right ovary (?). Incision, from umbilicus to an inch and a half above pubes; sac evacuated, pedicle tied, and tumor removed; died in three days.

259. Smith, Alban G.[3] — Age, thirty; two children; menses regular. Operation, May 24, 1823. Incision, umbilicus to within one inch of pubes; no adhesions; sac emptied of several pints of "watery matter," and, with some difficulty, extracted; ligature around the pedicle; right ovary of "scirrhus appearance," and containing a quantity of bony matter; menses returned profusely in five days; ligature came away twenty-fifth day; has been well since, except for pain in loins and abdomen during menstrual periods.

260. A. G. Smith.[4] — Case successful.

261. A. G. Smith.[4] — Patient died of secondary hemorrhage, from relaxation of the ligature, some days after operation.

262. A. G. Smith and McDowell.[4] — Patient had ascites, for which she had tapped herself ninety times. Both considered the diagnosis as certain; but, on opening the abdomen, no ovarian tumor was found, a mass of intestines only, conglomerated by adhesions. She died.

263. Tanner.[5] — Mary Ann H.; age, fifty-six; single;

[1] Mr. T. S. Lee's Tables, loc. cit. p. 271.

[2] Dr. R. Lee's Tables, from Brit. Prov. Med. and Surg. Jour. 1851.

[3] North-American Med. and Surg. Jour. vol. i. 1826.

[4] Appendix to Cooper's Surg. Dictionary; note by editor, who reports it as "Goldsmith;" see also Foltz's article, New-York Jour. of Med. September, 1843.

[5] Lancet, vol. ii. 1852.

menses ceased eleven years ago, the abdomen enlarging ever since; treated with iodine, mercurials, &c.; March 1, 1852, two pailfuls drawn by tapping; then bandaged tightly, and iodine and mercurials resumed; in six weeks, as large as ever. Operation, April 22, 1852. Incision, three inches (afterwards enlarged a little); cyst evacuated, and drawn out; ligature around pedicle, and, after its division, another was required; right ovary; left her bed in eighteen days; ligature came away in one month, and she was well in about six weeks.

264. Tanner.[1] — Mary S.; age, forty-six; married for twenty-four years; never pregnant; menses irregular since marriage; enlarging for eight months, consequent upon a sprain; tapped six months ago. Operation, March 15, 1853. Incision, below umbilicus, three inches, afterwards enlarged; adhesions; tapped, two pints only drawn, tumor being chiefly solid; some hemorrhage on removing tumor; ligature around pedicle; malignant tumor in the left broad ligament; the ovary attached to it healthy; menses second day; died, in five and a half days, of peritonitis.

265. Teale.[2] — M. C.; age, twenty-one; single; menses ceased eighteen months ago, at which time the disease began; tapped five times in past nine months. Operation, April 3, 1854. Incision, four inches (afterwards enlarged a little); adhesions only where formerly tapped; multilocular tumor of right ovary removed; double ligature through pedicle; *ligatures, and stump of pedicle, fastened to external surface of wound;* died, in twenty-two hours, of hemorrhage, probably from some small omental vessels, which did not bleed at time of operation. In this case, *the transverse colon was firmly adherent* to front wall of abdomen!

266. Trowbridge.[3] — Mrs. H.; age, twenty-two; one child; right ovary; two years' growth, following parturition;

[1] Med. Times and Gaz. April, 1853.

[2] Ranking's Abstract, vol. xxi. 1855, from Med. Times and Gaz. July, 1854.

[3] Boston Med. Intelligencer, vol. v. 1827, p. 337.

became pregnant, and miscarried, during its growth. Operation, April 20, 1827. Incision, oblique, four inches; sac emptied of seven pounds of pus, and, owing to adhesions, its extirpation abandoned; dilated puncture, and inserted a tent of lint; third day, peritonitis; fourth day, free suppuration; seventh day, removed tent, and inserted a tube; the next day, a pint of fetid matter escaped, and he injected a tea-cup full of warm port-wine and water; recovered in fifteen days, and bore a child two years after;[1] recommends free incision, and partial or entire extirpation of cyst.

267. Trowbridge.[2] — Age, twenty; unmarried; supposed by friends to be pregnant; after tapping, a hardness was felt on left side, and supposed to be encysted ovary. Operation. Oblique incision, from linea alba, three inches long; on division of peritoneum, four quarts of ascitic fluid were discharged, and no diseased ovary was to be found! He confesses, with frankness, that "here was an entire mistake." It was chronic peritonitis; and the hardness on the left side was "enlargement of the colon, and thickening of its coats." The discharge of fluid continued for several weeks, and she entirely recovered.

268. Trustram.[3] — Operation, 1844. Age, eighteen; short incision; no adhesions; cystic; removed; recovered.

269. Unknown, reported by Dr. Sargent, of Worcester.[4] — Age, thirty-four; single; over eight years' growth. Incision, to the right of and below the umbilicus; operation abandoned on account of adhesions; died, in three days, of peritonitis; name of surgeon not given. She was tapped before the operation; and a pint of blood was said to have flowed through the canula before its removal. After death, it was found that the uterus had been perforated by the trocar! Fibrous disease of both ovaries, weighing forty-six and

1 Boston Med. and Surg. Jour. vol. xxv. 1841.

2 Boston Med. and Surg. Jour. August, 1841.

3 Mr. Walne's Table, in Ashwell on "Dis. of Women," p. 667.

4 Records of the Boston Society for Medical Improvement, May, 1854, vol. ii. p. 92.

a half pounds; and they were adherent to each other and to the intestines.

270. Unknown, from Froriep's Notizen, vol. xiv.[1] — Age, forty-eight; one year's growth; tapped six times. Long incision; adhesions; part of sac removed; tumor could not be wholly removed, owing to its broad base, and attachments to os innominatum; died, sixth day, with tetanic symptoms.

271. Unknown.[2] — A. B. Large incision; adhesions; not removed; died.

272. Unknown.[2] — C. D.; age, twenty-two. Small incision; no tumor; recovered.

273. Unknown.[2] — E. F. Large incision; adhesions; death.

274. Unknown.[2] — G. H. Death; no details.

275. Unknown, reported by Mr. Hargraves.[3] — After discharging five pints of dark grumous matter, the sac was found to be very much thickened, adherent, and complicated with a tumor the size of a child's head at birth; died in five days; the tumor was not removed.

276, 277, 278, 279. Unknown.[4] — These cases were all fatal. They were communicated to Dr. Lee confidentially, and never published. I give them on his authority.

280. Unknown.[5] — Mr. W. B–k–s–w. Long incision; no adhesions; died, sixth day, of peritonitis. Mr. Lee says, in a note, p. 270, "This case has not been published, but was related to me by the nurse who was present at the operation; also at the office for the registry of deaths."

[1] Jeaffreson's, Churchill's, and Phillips's Tables; also Brit. and For. Med. Rev. October, 1843, p. 392.

[2] Mr. Phillips's Table. These four cases I am doubtful of, as, on page 482, he mentions Gooch's name in connection with one of them; and I think it possible that they are repetitions of other cases. Dr. R. Lee and Mr. T. S. Lee admit them.

[3] Dr. Lee's Table, No. 17.

[4] Dr. Lee's Tables, Nos. 146, 147, 148, 149.

[5] T. S. Lee's Tables, No. 71, p. 268.

281. Van Buren, New York.[1] — Age, twenty-one; five years' growth; never menstruated; procidentia uteri. Operation, Nov. 1, 1849. Incision, twelve inches; omentum adherent, and, after separation, required three ligatures, which were cut short; five ligatures were required for vessels in left broad ligament after dissection; *peritoneum dissected from pedicle to allow application of ligature;* pedicle then tied in such a way as to allow of the removal of the ligature in the broad ligament. Fibrous tumor of left ovary, weighing seven pounds. Recovered. The last ligature came away nineteenth day; since married, and in good health; menses appeared a month after the operation, and continue regular.[2]

282. Van Buren.[3] — Age, forty-five; married; seven years' growth; four children, last born twelve years ago; first five years, menses regular; last two years, a continuous discharge from the uterus; protrusion of vagina and posterior wall of bladder, *caused by the pressure of a bandage* which had been applied. Operation, Nov. 12, 1851. Incision, nine inches, and tumor turned out; adhesions to mesentery, requiring, on division, six ligatures, which were cut close; the pedicle contained largely dilated veins, one of which gave way under the ligature, and twelve ounces were lost; finally secured, and tumor removed; died, in thirty-nine hours, of peritonitis. Encephaloid tumor of left ovary, weighing eight pounds.

283. Veaullegeard.[4] — T. R.; age, twenty-five; menses at eighteen; five years' growth; menses irregular; tapped

[1] New-York Jour. of Med. March, 1850. In the same article, Dr. Van Buren alludes to three fatal cases, occurring in New York, which were never recorded. Through his kindness in communicating the facts, and his authorities therefor (which are unquestionable), I am enabled to give these three cases; and also an additional one, which has occurred within the past few months. (See Synopsis, 29, 30, Anonymous.) Two of them (see 229, 230) are given with the full permission of the operator, Dr. Mott. The operators in the other two (29, 30) seem unwilling to give either the details, or permission to publish their names.

[2] Same Jour. March, 1851.

[3] New-York Jour. of Med. March, 1852.

[4] Monthly Retrospect of Med. Sciences, vol. i. 1848, p. 173, reported by Dr. McCarthy. I suppose the same as Mr. Atlee's case of Vaugirard (195).

fifty-two times in three years. Operation, Sept. 15, 1847. Incision, seven inches; tumor incised, and its serous and puriform contents discharged; two ligatures around pedicle; left ovary, eighteen pounds, half fluid, half solid; ligatures came away sixteenth day, and in twenty-five days she was well.

284. Warren, J. C.[1] — C. W.; age, forty; single; menses profuse. Operation, November, 1830. Incision, twelve inches; and scirrhous tumor, weighing twenty-five pounds, removed. Owing to the extreme shortness of the pedicle, the ligature slipped; and she sank from hemorrhage from the numerous vessels, notwithstanding they were secured as fast as possible.

285. Walne.[2] — Mrs. F.; age, fifty-eight; five children, and miscarried several times; menses ceased four years ago; two years' growth; tentative incision of an inch and a half to ascertain as to existence of adhesions; extended from ensiform to pubes nearly, thirteen inches long; right ovary, weighing sixteen pounds; no adhesions; double ligature through pedicle, an artery tied on face of stump, and, finally, another ligature carried around pedicle; seventeenth day, sat up; twenty-third day, wound healed, except for ligatures; the ligatures escaped into cavity, but re-appeared again. Operation, Nov. 6, 1842. Ligatures came away Jan. 10.[3]

286. Walne.[4] — Age, fifty-seven; widow; never pregnant; left ovary. Operation, May 30, 1843. Tentative incision, an inch and a half, and, finding no adhesions, extended it to twelve inches, between ensiform and pubes; ligature through pedicle broke; second one around; after division, there was hemorrhage, suppressed by another ligature around whole pedicle; recovered, after attack of phlebitis;

[1] Warren on Tumors, 589.

[2] Lond. Med. Gaz. vol. xxxi. 1843; and Brit. and For. Med. Rev. October, 1843; also Ashwell on Female Diseases, p. 660.

[3] See note, p. 572, of Gazette.

[4] Lond. Med. Gaz. vol. xxxii.; and Brit. and For. Med. Rev. October, 1843, p. 402; and Ashwell, loc. cit. p. 667.

weight, sixteen and three-quarter pounds; ligature fell in five weeks.

287. Walne.[1] — Age, twenty; unmarried; menses at fourteen, which continue regular; increased size, apparent at sixteen (patient herself thinks it began, in an attack of inflammation, at eleven); health good; size of full term of pregnancy. Operation, Sept. 12, 1843. Tentative incision, an inch and a half, extended to fourteen inches, between ensiform and pubes; no adhesions; left ovary; double ligature through pedicle; weight, twenty-eight pounds; catamenia, fourth day; seventeenth day, walked across room.

288. Walne.[2] — Age, fifty-four; five children, youngest fourteen years old; menses ceased at forty; four years' growth; tapped three times. Operation, Oct. 11, 1843. Tentative incision, five inches, and operation abandoned owing to extensive adhesions; recovered from operation; tapped afterwards.

289. Walne.[3] — Age, forty-five; tapped many times. Operation, Oct. 19, 1843. Tentative incision, of two inches, revealed an ovarian tumor, floating in ascitic fluid; incision extended to fifteen inches; left ovary; double ligature through pedicle. There was also a large fibrous tumor of uterus, which was not removed. Five gallons of ascitic fluid were collected, and the ovarian tumor removed; weighed fourteen pounds, five of which were solid, the rest gelatinous, and contained in cysts; died, in nine days, of peritonitis. [In Ashwell, the age is given as twenty-one; but, as the other accounts all say forty-five, I presume it to be a misprint.]

290. Walne.[4] — No date. "Long incision; extensive and strong adhesions, which were violently torn up; communicated to Dr. Lee by a personal friend, who was present at the operation; death speedily followed." Unpublished.

[1] Lond. Med. Gaz. vol. xxxiii. 1844; and Ashwell, loc. cit. p. 667.
[2] Lond. Med. Gaz. vol. xxxiii. 1844; and Ashwell, p. 668.
[3] Lond. Med. Gaz. vol. xxxiii. 1844.
[4] Dr. R. Lee's Tables, loc. cit. No. 108.

291. Walne.[1] — Miss D.; age, thirty; three years' growth. Operation, April 22, 1844. Tentative incision, one inch, extended to three inches, and twenty-four pints escaped from the sac; operation abandoned [he gives no reason]; the patient recovered, but the sac filled again. She afterwards married, and bore two children [from which it is fair to infer that she recovered, not only from the operation, but the disease also].

292. West.[2] — Mrs. H.; age, forty-five; three children; thirteen years' duration. Operation, Nov. 2, 1837. Incision, two inches, below umbilicus; cyst emptied of twenty pints, and drawn out; ligature around pedicle cut close; the wound healed in four days, and she rapidly recovered.

293. West.[3] — Miss S.; age, twenty-three; no details; cyst removed; recovered.

294. West.[3] — Mrs. Tomkins; age, forty; cyst previously tapped; adhesions, and operation abandoned in consequence; recovered from operation, and tapped seventeen times since.

295. West.[3] — A. M.; age, twenty-four; cyst tapped repeatedly; removed; died.

296. Webster.[4] — Operation, 1844. Age, thirty-seven; large incision; operation abandoned on account of adhesions; recovered rapidly from the operation, though the peritoneal cavity was exposed for two hours; but she died from the disease in about two months.

297. Woyeikowski.[5] — Age, forty; three children; menses ceased fifteen months; was called for supposed labor; had some pain before his arrival, and a protrusion from the vulva of a tumor, which proved to be the uterus, three times its normal size, and admitting a finger into the os. Being irreduci-

[1] Dr. R. Lee's Tables, No. 114, communicated by Dr. Hogg, who was present at the operation; unpublished.

[2] Lancet, vol. i. 1837–38, p. 307.

[3] Lancet, October, 1839, reported by Mr. Gorham.

[4] Trans. Am. Med. Assoc. vol. iv. 1851; Atlee's Table.

[5] Lond. and Edin. Monthly Jour. June, 1847, from Jour. de Méd. et de Chirurg. Pratique, April, 1847; also Am. Jour. Med. Sciences, October, 1847.

ble, the abdomen, which was distended with fluid, was tapped, and thirty-five quarts of transparent, inodorous fluid drawn from peritoneum; after which a tumor, the size of a man's head, was found floating in abdomen. The uterus was now reduced; and the next day, April 28, 1844, operated. Large incision, three inches above umbilicus to pubes, and a lardaceous tumor of right ovary, containing purulent collections, removed, weighing six and a half pounds; no bad symptoms; able to walk home twenty-fifth day; one child in thirteen months, and in December, 1846, another.

298, 299, 300. Woodward[1] gives three cases, one of which was operated by Dr. Chamberlain; all fatal. In Chamberlain's case, death followed in two days.

[1] Western Lancet, March, 1856.

TABLE OF THREE HUNDRED CASES OF OPERA-

ARRANGED FROM THE

Number.	Operator.	Date of Operation.	Age.	Married or Single. M.	Married or Single. S.	Ovary removed R.	Ovary removed L.	Both diseased.	Duration at Time of Operation.	Catamenia.	Previous Tappings.	Kind of Incision. S.	Kind of Incision. L.	Adhesions. None.	Adhesions.	Removed. Yes.	Removed. No.	Partially removed.
1	Anderson . .	Sept. 1848	34	1	.	.	.	*	2½ yr.	. . . . .	2	.	1	.	Extensive	.	1	. . .
2	Arnott . . .	. . 1848	23	.	.	.	.	..	. . .	. . . . .	..	1	.	.	do.	.	1	. . .
3	Arrowsmith .	. . 1846	24	.	.	.	.	..	. . .	. . . . .	1	1	.	.	do.	.	1	. . .
4	Atlee, J. L. .	June, 1843	25	.	1	1	1	*	7 yr.	Irregular . .	6	.	1	.	1 adherent	1	.	. . .
5	do. do. .	1846	33	.	.	.	.	..	. . .	. . . . .	..	.	1	.	Adhesions	1	.	. . .
6	Atlee, W. L. .	Mar. 1844	61	1	.	.	1	*	21 yr.	. . . . .	2	.	1	1	. . .	1	.	. . .
7	do. do. .	Mar. 1849	29	1	.	1	.	..	3 yr.	. . . . .	1	.	1	.	Adhesions	1	.	. . .
8	do. do. .	May, 1849	33	.	1	.	.	*	4 yr.	Irregular . .	1	.	1	1	. . .	.	1	. . .
9	do. do. .	June, 1849	25	1	*	1	.	..	4 yr.	Regular . .	..	.	1	.	Adhesions	1	.	. . .
10	do. do. .	Feb. 1850	30	.	1	.	.	..	. . .	. . . . .	..	.	1	.	Extensive	1	.	. . .
11	do. do. .	Feb. 1850	48	1	.	.	.	..	. . .	. . . . .	..	.	1	.	Adhesions	.	.	*
12	do. do. .	Mar. 1850	40	1	.	.	.	..	. . .	. . . . .	5	.	1	.	do.	1	.	. . .
13	do. do. .	June, 1850	37	1	.	.	.	..	. . .	. . . . .	..	.	1	.	do.	.	.	*
14	do. do. .	July, 1850	42	1	.	.	.	..	. . .	. . . . .	..	.	1	.	General	.	.	*
15	do. do. .	Nov. 1850	28	1	.	.	.	..	. . .	. . . . .	16	.	1	.	Adhesions	1	.	. . .
16	do. do. .	April, 1851	29	1	.	.	.	..	. . .	. . . . .	..	.	1	.	Firm	1	.	. . .
17	do. do. .	Jan. 1852	68	1	.	.	.	..	. . .	. . . . .	..	.	1	.	Adhesions	1	.	. . .
18	do. do. .	May, 1852	20	.	1	.	.	..	. . .	. . . . .	..	1	.	.	do.	1	.	. . .
19	do. do. .	Aug. 1852	30	1	.	1	1	*	5 mo.	. . . . .	..	.	1	.	do.	1	.	. . .
20	do. do. .	Sept. 1853	56	1	.	.	.	..	. . .	. . . . .	..	1	.	.	do.	1	.	. . .
21	do. do. .	Sept. 1853	26	1	.	.	.	..	6 mo.	. . . . .	..	1	.	.	do.	1	.	. . .
22	do. do. .	April, 1854	36	1	.	1	1	*	. . .	. . . . .	..	1	.	1	. . .	1	.	. . .
23	do. do. .	July, 1854	31	.	1	1	1	*	. . .	. . . . .	..	1	.	.	Adhesions	1	.	. . .
24	do. do. .	Sept. 1854	52	1	.	.	.	..	. . .	. . . . .	..	1	.	.	do.	1	.	. . .
25	do. do. .	Sept. 1854	59	1	.	1	1	*	. . .	. . . . .	..	1	.	.	do.	1	.	. . .
26	do. do. .	Oct. 1854	24	1	.	.	.	..	. . .	. . . . .	..	.	1	.	do.	1	.	. . .
27	do. do. .	Oct. 1854	42	1	.	.	.	..	. . .	. . . . .	..	.	1	.	do.	1	.	. . .
28	do. do. .	Dec. 1854	49	.	1	.	.	..	. . .	. . . . .	..	1	.	1	. . .	1	.	. . .
29	Anonymous .	. . .	30	1	.	.	.	..	. . .	. . . . .	..	.	.	.	Universal	1	.	. . .
30	do.	. . .	35	1	.	.	.	..	. . .	. . . . .	..	.	.	.	. . .	1	.	. . .
31	Burd, H. E. .	Sept. 1846	25	1	.	.	.	..	12½ mo.	. . . . .	..	.	1	1	. . .	1	.	. . .
32	Bellinger . .	Dec. 1835	35	1	.	1	.	..	1 yr.	Regular . .	..	.	1	.	. . .	1	.	. . .
33	do. . .	. . .	..	.	.	.	.	..	Many yrs.	. . . . .	..	.	.	.	Extensive	.	1	. . .
34	Bird, Fred. .	June, 1843	35	1	.	.	.	..	16 yr.	Regular . .	10	1	.	.	Slight	1	.	. . .
35	do. do. .	Nov. 1843	21	.	1	.	.	..	2 yr.	Irregular . .	..	1	.	1	. . .	1	.	. . .
36	do. do. .	Jan. 1844	35	1	.	1	.	..	6 yr.	do. . .	..	.	1	.	Adhesions	1	.	. . .
37	do. do. .	April, 1844	21	.	1	1	.	..	3 yr.	Regular . .	..	1	.	1	. . .	1	.	. . .
38	do. do. .	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	.	Adhesions	.	.	*
39	do. do. .	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	.	do.	1	.	. . .
40	do. do. .	. . .	..	.	1	.	.	..	. . .	. . . . .	..	1	.	.	do.	1	.	. . .
41	do. do. .	. . .	..	1	.	.	.	..	. . .	. . . . .	Often	1	.	.	do.	1	.	. . .
42	do. do. .	. . .	..	1	.	1	1	*	. . .	. . . . .	..	1	.	.	. . .	1	.	. . .
43	do. do. .	. . .	..	1	.	.	.	..	. . .	. . . . .	..	1	.	1	. . .	1	.	. . .
44	do. do. .	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	.	. . .	1	.	. . .
45	do. do. .	. . .	21	.	1	.	.	..	. . .	. . . . .	..	1	.	.	Slight	1	.	. . .
46	do. do. .	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	.	. . .	1	.	. . .
47	do. do. .	Jan. 1848	..	1	.	.	.	..	. . .	. . . . .	..	.	1	.	Adhesions	.	1	. . .
48	do. do. .	. . .	..	1	.	.	.	..	. . .	. . . . .	..	1	.	.	do.	.	1	. . .
49	do. do. .	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	.	do.	.	1	. . .
50	do. do. .	. . .	..	.	1	.	.	..	. . .	. . . . .	..	1	.	.	do.	.	1	. . .
51	do. do. .	. . .	..	1	.	.	.	..	. . .	. . . . .	..	1	.	.	do.	.	1	. . .
52	do. do. .	. . .	..	.	1	.	.	..	. . .	. . . . .	..	1	.	.	do.	.	1	. . .
53	do. do. .	. . .	..	1	.	.	.	..	. . .	. . . . .	..	1	.	.	do.	.	1	. . .
54	do. do. .	. . .	..	.	1	.	.	..	. . .	. . . . .	..	1	.	.	do.	.	1	. . .
55	do. do. .	. . .	..	.	1	.	.	..	. . .	. . . . .	..	1	.	.	do.	.	1	. . .

PRECEDING SYNOPSIS.

Description.	Died.	Cause of Death.	Recovered.	Period of Recovery or Death after Operation.	Why not removed.	Complications and Remarks.
Encysted	1			3 weeks	Adhesions	
do.	1				do.	
do.			1		do.	Tapped afterwards.
do. 18 lb.			1	3 months		Ascites; for which she was tapped 6 times.
do. 45 lb.	1	Pneumonia		15th day		
do. 10¼ lb.	1	Peritonitis		6th day		Diagnosticated right ovary; no adhesions, though tapped.
Fibrous, 8 lb.			1	1 month		Procidentia uteri; pregnant twice since, and once during growth; no fluid by tapping.
Cysts			1	9 days	Uterus discased	Uterine; died, in few months, of erysipelas; no fluid by tapping. †
Solid & fluid, 40 lb.			1	1 month		Two children since, and one before.
Cystic, 14 lb.	1	Peritonitis		6th day		Adhesions ligatured.
Cystiform, 28 lb.	1	Exhaustion		3d day	Adhesions	Spermatic artery tied.
do. 25 lb.	1	do.		3d day		Ascites; for which she was tapped 5 times.
do. 25 lb.			1	Rapidly	Adhesions	A portion of cyst, size of hand, left attached; pregnant since.
do. 15 lb.			1	do.	do.	Part of cyst left; torsion of vessels; living '55.
do. 81 lb.	1	Starvation		30th day		Two months' pregnancy; no miscarriage.
do. 35½ lb.	1	Peritonitis		3d day		Ascites.
do. 28 lb.			1			
do. 25 lb.	1	Exhaustion		13 hours		Thickened omentum; "rotten" cysts.
do. 40 lb.	1	do.		9 hours		"Rotten" cysts.
do. 50 lb.			1			Ascites.
do. 40 lb.	1	Gangrene of jejunum		22 days		Wound had healed.
do. 15 lb.			1			Ascites.
do. 50 lb.	1	Exhaustion		5th day		Tubercular deposits in abdomen.
do. 24 lb.			1			
do. and fibrous, 20 lb.	1	Hemorrhage		5th day		Pelvic tumor; fibrous tumor in pelvis removed also.
Cystiform, 30 lb.			1			
do. 38 lb.	1	Hemorrhage		6th day		
do. 18 lb.			1			
Huge cyst	1	Loss of blood, & shock		28 hours		
Encysted	1	Peritonitis		Less than a week		
Cystiform, 50 lb.			1	7 weeks		Pregnancy; abortion in 2 days, afterwards pregnant; began during *previous* preg'cy.
			1	Few weeks		Uterine disease; menses never returned (!); see Synopsis. †
			1		Adhesions	
Cyst, 20 lb.			1	5 weeks		
do. 27 lb.			1	3 weeks		
do. 35 lb.			1	4 weeks		
do. 29 lb.			1	7 weeks		
do.			1		Adhesions	
do.			1			
	1			3d day		
	1			3d day		
			1			
	1			5th day		
Multilocular	1			1 week		
			1			
			1			
Malignant	1			28 hours	Adhesions	
			1		do.	Recovered from operation.
			1		do.	do. do. do.
			1		do.	do. do. do. lived two years.
	1			6 weeks	do.	
			1		do.	Recovered from operation; lived two years.
			1		do.	do. do. do. lived nearly 3 years.
			1		do.	do. do. do. lived six months.
			1		do.	do. do. do.

Number.	Operator.	Date of Operation.	Age.	Married or Single. M.	Married or Single. S.	Ovary removed. R.	Ovary removed. L.	Both diseased.	Duration at Time of Operation.	Catamenia.	Previous Tappings.	Kind of Incision. S.	Kind of Incision. L.	Adhesions. None.	Adhesions.	Removed. Yes.	Removed. No.	Partially removed.
56	Bird, Fred.											1			Adhesions		1	
57	do.											1			do.		1	
58	do.			1								1			do.		1	
59	do.			1								1			do.		1	
60	do.				1							1			do.		1	
61	do.			1								1			do.		1	
62	do.											1			do.		1	
63	do.			1								1			do.		1	
64	do.											1			do.		1	
65	do.				1							1			do.		1	
66	Bowles	Aug. 1844	25	1		1			1 yr.				1		do.	1		
67	Buckner	Jan. 1850	39	1		1							1		do.	1		
68	do.	April, 1848		1												1		
69	do.	June, 1848		1			1					1		1		1		
70	do.	Oct. 1851		1					2 yr.				1			1		
71	Beale	Dec. 1850	30		1		1		1 yr.				1			1		
72	Bennett, E.	June, 1851	52	1					2 yr.		2				Adhesions	1		
73	Bennett, E. P.	Jan. 1856	23		1				2 yr.	Regular		1		1		1		
74	Brown, I. B.	Mar. 1852	30		1		1		9 yr.?		2?	1		1		1		
75	do.	May, 1852	23	1					2 yr.	Regular		1			Adhesions	1		
76	do.	June, 1852	30	1			1		18 mo.				1		do.	1		
77	do.	Mar. 1854	57	1		1?			18 mo.		1	1		1		1		
78	do.		27		1				7 yr.?		Many		1		Slight	1		
79	do.	July, 1852	37	1					9 yr.		7		1		Adhesions	1		
80	do.	April, 1854	37	1					2 yr.			1			do.	1		
81	Bayless	1850														1		
82	do.	Jan. 1853	20	1			1		4 yr.		1	1			Adhesions	1		
83	Bradford	June, 1853	21		1		1		12 yr.	Regular			1		do.	1		
84	Bigelow	Dec. 1849	22				1		1 yr.		2		1		do.	1		
85	Burnham	June, 1853	42		1	1	1	*	6 yr.				1		do.	1		
86	Baker	May, 1851	18						6 yr.			1			do.	1		
87	Blackman	Dec. 1855									sev'r'l				Slight	1		
88	Cooper	Nov. 1843	32	1		1			5 yr.	Always irreg.	2		1		do.	1		
89	Cornish	Feb. 1850	19			1			18 mo.	Tolerably reg.			1		do.	1		
90	Chrysmar	May, 1819	47	1			1		4 yr.				1		Extensive	1		
91	do.	June, 1820	38	1			1		7 yr.?				1		Adhesions	1		
92	do.	Aug. 1820	38		1		1	*	6 yr.	Irregular	1		1		do.	1		
93	Crouch	July, 1849	24		1		1		2 yr.	Regular	1		1		do.	1		
94	Crisp								20 yr.		2			1		1		
95	Childs	Mar. 1853	33	1		1			10 mo.			1		1		1		
96	do.															1		
97	Craig, Ky.	April, 1854	26	1			1			Irregular			1		Adhesions	1		
98	Clay	Sept. 1842	46	1		1			3 yr.	Regular			1		do.	1		
99	do.	Oct. 1842	57	1			1		10 mo.				1		do.	1		
100	do.	1842	46	1					7 yr.	Regular	1	1			do.		1	
101	do.	Nov. 1842	39	1		1			7 yr.		5		1		do.	1		
102	do.	1843	45	1		1	1	*					1	1		1		
103	do.	Aug. 1844	22		1	1			5 or 6 yr.	Regular	6		1		Adhesions	1		
104	do.	Jan. 1845	35		1				10 or 12 yr.		6		1	1		1		
105	do.	Mar. 1843	35	1							Often		1		Adhesions	1		
106	do.	Oct. 1843	46	1				R*			1	1			do.		1	
107	do.	July, 1845	38	1								1			Adhesions		1	
108	do.	Jan. 1846	51	1			1			Irregular			1			1		
109	do.	Aug. 1845	35	1		1				do.	3		1		Slight	1		
110	do.	Oct. 1845	38					*?	4 yr.		3		1		Adhesions	1		
111	do.	Sept. 1848	27					R*	3 yr.	Irregular	1		1		do.			*
112	do.	June, 1847	32	1							2		1	1		1		
113	do.	July, 1846	32	1					4 yr.	Irregular	5		1			1		
114	do.	Mar. 1846	45	1		1			12 yr.	do.			1		Adhesions	1		
115	do.	1847	51	1					16 yr.				1		do.	1		
116	do.	Aug. 1843	40	1		1				Irregular			1		do.	1		
117	do.	Nov. 1843	40	1		1?			10 or 12 yr.		3		1		do.	1		
118	do.	Nov. 1846	26			1			3 or 4 yr.				1	1		1		

Description.	Died.	Cause of Death.	Recovered.	Period of Recovery or Death after Operation.	Why not removed.	Complications and Remarks.
. . . . .	.	. . . . .	1	. . . .	Adhesions . . .	Recovered from operation; tapped several times after.
. . . . .	.	. . . . .	1	. . . .	do. . . .	Recov'd from operation; tapped afterwards.
. . . . .	.	. . . . .	1	. . . .	do. . . .	do. do. do. do. do.
. . . . .	1	. . . . .	.	. . . .	do. . . .	
. . . . .	1	Hepatic abscess . .	.	1 day . .	do. . . .	
. . . . .	.	. . . . .	1	. . . .	do. . . .	Recov'd from operation; tapped afterwards.
Colloid	.	. . . . .	1	. . . .	do. . . .	do. do. do. living 10 mos. after.
. . . . .	.	. . . . .	1	. . . .	do. . . .	do. do. do. tapped afterwards.
. . . . .	.	. . . . .	1	. . . .	do. . . .	do. do. do. living a year after.
. . . . .	.	. . . . .	1	. . . .	do. . . .	do. do. do.
Solid, 5 lb. . . .	.	. . . . .	1	2 months .	. . . . .	Last ligature remaining 2 months after.
. . . . .	.	. . . . .	1	Eventually	. . . . .	Ligature fell 39th day.
Fibrous	.	. . . . .	1	. . . .	. . . . .	Was well 2 years after, and menses regular.
. . . . .	1	Peritonitis	.	6th day .	. . . . .	
Mesenteric . . .	.	. . . . .	1	7 weeks .	. . . . .	Dissected off intestine, adherent 12 inches!
Cyst. 25 lb. . . .	.	. . . . .	1	3 weeks .	. . . . .	
Cystiform	1	Exhaustion . . .	.	4th day .	. . . . .	
. . . . .	.	. . . . .	1	. . . .	. . . . .	No unpleasant symptom.
Vascular cyst . . .	.	. . . . .	1	4 weeks .	. . . . .	Extirpation not intended, hemorrhage required it; since married and pregnant.
do. do. . . .	1	Hemorrhage . . .	.	40 hours .	. . . . .	Extirpation not intended, hemorrhage required it.
Solid and fluid . .	1	Peritonitis	.	31st day .	. . . . .	Menses 26th day; 2 openings into bowels.
Cystic	.	. . . . .	1	2 weeks .	. . . . .	Ascites; pedicle fastened to wound.
Multilocular . . .	1	Peritonitis	.	3 days .	. . . . .	
do. 70 lb. .	1	do.	.	5 days .	. . . . .	
Piliferous	1	do.	.	9 days .	. . . . .	Pedicle fastened to external wound.
. . . . .	.	. . . . .	1	. . . .	. . . . .	
. . . . .	1	Hemorrhage . . .	.	20½ hours .	. . . . .	Hemorr. from adhesions (?) early pregnancy!
Cyst and bone . .	.	. . . . .	1	6 weeks .	. . . . .	Began at 9 years of age.
Cyst, 8 lb.	1	. . . . .	.	3d day .	. . . . .	Ascites, and fibrous tumor of uterus; uterine tumor removed, ¾ lb. +
1 fibrous, 1 cystic .	.	. . . . .	1	35 days .	. . . . .	Fibr. uterus; uterus & both ovaries removed! +
Cystic	1	Collapse from hemorr.	.	26 hours .	. . . . .	Began at age of 12 years and 3 months!
22 lb.	.	. . . . .	1	. . . .	. . . . .	No bad symptoms.
Cyst, 32 lb. . . .	1	Peritonitis	.	7 days .	. . . . .	Fungoid disease of uterus. +
Solid and fluid, 7½ lb.	.	. . . . .	1	54 days .	. . . . .	
Solid, 7¼ lb. . . .	1	Peritonitis	.	36 hours .	. . . . .	Ascites.
Fibrous, 8 lb. . .	.	. . . . .	1	6 weeks .	. . . . .	Pregnant afterwards.
Solid, 6½ lb. . . .	1	Peritonitis	.	36 hours .	. . . . .	Ascites; dis. liver & uterus; tap'd for ascites. +
Cysts (200), 4 lb. .	.	. . . . .	1	5 weeks .	. . . . .	Afterwards pregnant; ligature as for nævus.
Cystic	.	. . . . .	1	. . . .	. . . . .	No adhesions where tapped.
Cysts	.	. . . . .	1	. . . .	. . . . .	
. . . . .	1	Diarrhœa	.	. . . .	. . . . .	
Cystic and solid . .	.	. . . . .	1	7 weeks .	. . . . .	Ascites; well 4 months after.
Cyst. & solid, 17lb. 5oz.	.	. . . . .	1	21st day .	. . . . .	Ascites, and prolapsus of vagina.
Cystic and solid, 5 lb.	.	. . . . .	1	14 days .	. . . . .	Ascites; for which she was tapped.
Malig. vascular. 30lb.	1	. . . . .	.	6th day .	Adhesions . . .	Oij bloody fluid only, from tapping.
Cystic & solid, 73½ lb.	.	. . . . .	1	5 weeks .	. . . . .	Ascites; pregnant once during growth.
Solid, 13 lb. . .	1	Hemorrhage . . .	.	1½ hours .	. . . . .	Disease of uterus; nearly all uterus removed. +
Cys. & solid. 29lb. 14oz.	.	. . . . .	1	23 days .	. . . . .	Had been salivated.
Cystic and solid. 23lb.	.	. . . . .	1	15 days .	. . . . .	
Solid and fluid, 25½ lb.	1	Hemorrhage . . .	.	27 hours .	. . . . .	Ruptured spontaneously 2 or 3 times.
. . . . .	.	. . . . .	1	1 week . .	Adhesions; loose hydatids.	Disease of uterus and liver; well 2 years after; tent introduced after emptying cyst. +
Cystic	.	. . . . .	1	8 weeks .	Adhesions . . .	Well two years after; tent introduced after emptying cyst.
Cystic, 6 lb. . . .	.	. . . . .	1	8 days .	. . . . .	
Cystic and solid, 18lb.	.	. . . . .	1	3 weeks .	. . . . .	Menses regular since.
do. do. 14 lb.	.	. . . . .	1	4 weeks .	. . . . .	
do. do. . . .	.	. . . . .	1	5 weeks .	Adhesions . . .	Tent in solid part; recovered from operation and disease.
do. do. 14½ lb.	.	. . . . .	1	1 month .	. . . . .	Ascites; began during pregnancy; pregnant five months after, and aborted.
do. do. 22 lb.	.	. . . . .	1	5 weeks .	. . . . .	Menses became regular.
Solid, 46 lb. . . .	.	. . . . .	1	. . . .	. . . . .	do. do. do.
40 lb.	1	Exhaustion . . .	.	36 hours .	. . . . .	
Cystic and solid, 30lb.	1	Peritonitis	.	2d day . .	. . . . .	
do. do. 16 lb.	.	. . . . .	1	. . . .	. . . . .	
do. do. 35 lb.	1	Peritonitis (?) . . .	.	10th day .	. . . . .	

Number.	Operator.	Date of Operation.	Age.	Married or Single.		Ovary removed.		Both diseased.	Duration at Time of Operation.	Catamenia.	Previous Tappings.	Kind of Incision.		Adhesions.	Removed.		Partially removed.
				M.	S.	R.	L.					S.	L.	None.	Yes.	No.	
119	Clay	Jan. 1844	52	.	.	1	1	*	16 yr.	Irregular	..	.	1	.	1	.	.
120	do.	Mar. 1848	51	1	.	1	.	..	Long	. . . . .	..	.	1	. Adhesions	1	.	.
121	do.	June, 1848	47	1	.	.	.	..	5 or 6 yr.	. . . . .	2	1	.	. do.	1	.	.
122	do.	. . 1848	40	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
123	do.	. . 1848	19	.	1	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
124	do.	. . 1848	35	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
125	do.	. . 1846	27	.	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
126	do.	. . 1848	45	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
127	do.	. . 1847	25	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
128	do.	. . 1848	18	.	1	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
129	do.	. . 1848	47	.	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
130	do.	. . 1847	27	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
131	do.	. . 1848	35	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
132	do.	. . 1846	37	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
133	do.	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	. . .	.	1	.
134	do.	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	. . .	.	1	.
135	do.	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	. . .	.	1	.
136	do.	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	. . .	.	1	.
137	do.	. . .	..	.	.	.	.	..	. . .	. . . . .	..	1	.	. . .	.	1	.
138	do.	. . 1849	33	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
139	do.	. . 1849	32	.	1	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
140	do.	. . 1849	48	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
141	do.	. . 1850	45	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
142	do.	. . 1850	38	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
143	do.	Oct. 1850	35	.	1	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
144	do.	Nov. 1850	33	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
145	do.	Nov. 1850	57	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
146	do.	. . .	32	1	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
147	do.	Feb. 1851	45	1	.	.	.	..	. . .	. . . . .	10	.	1	. . .	1	.	.
148	Crume	1847 (?)	..	1	.	.	.	..	. . .	. . . . .	..	.	.	. . .	.	1	.
149	Duffin, E. W.	Aug. 1850	38	.	.	1	.	..	8 mo.	. . . . .	..	1	.	1	1	.	.
150	Dickin	1845	18	.	1	1	.	..	20 mo.	. . . . .	..	.	1	. Adhesions	1	.	.
151	Day	Sept. 1850	42	1	.	.	1	..	2½ yr.	. . . . .	1	.	1	1	1	.	.
152	Dunlap, Ohio	Mar. 1853	37	1	.	.	1	..	1 yr.?	. . . . .	4	1	.	. Adhesions	1	.	.
153	do.	May, 1853	46	1	.	.	1	..	3 yr.	. . . . .	..	1	.	. do.	1	.	.
154	do.	June, 1850	35	1	.	.	.	..	6 mo.	. . . . .	..	.	1	. Extensive	1	.	.
155	do.	1843	..	.	.	.	.	..	. . .	. . . . .	..	.	.	. . .	1	.	.
156	do.	Nov. 1855	..	.	.	.	.	..	. . .	. . . . .	..	.	.	. . .	1	.	.
157	Deane	June, 1848	43	.	.	.	.	..	1 yr.	. . . . .	..	1	.	. . .	.	1	.
158	do.	. . 1850	45	.	.	.	.	..	Sev'ral yrs.	. . . . .	1	.	1	1	1	.	.
159	Dieffenbach	. . 1829	40	1	.	.	.	..	10 or 12 yr.	Regular	..	1	.	. Adhesions	.	1	.
160	Dohlhoff	Sept. 1836	23	.	1	.	1	..	4 yr.	Suppression	..	1	.	1	1	.	.
161	do.	Oct. 1833	27	1	.	.	.	..	4 mo.	Regular	..	.	1	. Adhesions	.	1	.
162	do.	Sept. 1836	23	.	.	.	.	..	10 mo.	do.	..	1	.	. . .	.	1	.
163	De Morgan	Oct. 1849	25	.	1	.	.	..	3 yr.	. . . . .	..	1	.	. Universal	.	1	.
164	Emiliani	. . 1815	..	.	.	.	.	..	. . .	. . . . .	..	1	.	. . .	1	.	.
165	Elkington	. . 1849	31	1	.	.	.	..	1 yr.?	Irregular	1	.	1	. Slight	1	.	.
166	do.	July, 1846	37	1	.	.	.	..	3 yr.	. . . . .	6	1	.	. Adhesions	.	1	.
167	do.	July, 1848	47	1	.	.	.	..	18 yr.	. . . . .	..	.	1	. Extensive	1	.	.
168	Erichsen	. . 1853	65	.	.	1	.	..	. . .	. . . . .	..	1	.	. Slight	1	.	.
169	Fries	May, 1855	..	1	.	.	.	..	. . .	. . . . .	..	.	1	. Adhesions	1	.	.
170	Greenhow	Sept. 1843	29	1	.	.	1	..	18 mo.	Irregular	1	.	1	. do.	1	.	.
171	Galenzowski	. . .	27	.	.	*	.	..	2 yr.	Regular	..	1	.	. do.	.	1	.
172	Granville	. . 1827	..	.	.	.	.	..	. . .	. . . . .	..	.	1	. do.	.	1	.
173	do.	Mar. 1827	35?	.	.	.	.	..	. . .	. . . . .	..	.	1	. . .	1	.	.
174	Garrard	April, 1855	20	.	1	1	.	..	7 mo.	Regular	..	1	.	. Extensive	1	.	.
175	Gross, Ky.	June, 1849	22	.	1	1	.	..	18 mo.	do.	1	.	1	. Adhesions	1	.	.
176	Grimshaw	Sept. 1850	37	1	.	.	1	*	. . .	. . . . .	8	.	1	. do.	1	.	.
177	Gibson	Mar. 1850	39	1	*	.	.	*	. . .	Regular	10	.	1	. Extensive	.	1	.
178	Groth	. . 1835	..	.	.	.	1	..	. . .	. . . . .	..	.	.	. . .	1	.	.
179	Hawkins	Sept. 1846	27	.	1	.	.	..	4 yr.	Regular	..	1	.	. . .	1	.	.
180	Heath	Nov. 1843	46	.	1	.	.	..	12 mo.	Menorrhagia	..	.	1	. . .	1	.	.
181	Hayny	. . .	..	.	.	.	.	..	. . .	. . . . .	..	.	.	. Extensive	.	1	.
182	do.	. . .	..	.	.	.	.	..	. . .	. . . . .	..	.	.	. . .	1	.	.
183	Hargraves	. . .	40	.	.	.	.	..	. . .	. . . . .	..	.	.	. Adhesions	.	1	.
184	Holston	Oct. 1855	27	.	1	.	1	..	3 yr.	Regular	..	1	.	. . .	1	.	.

Description.	Died.	Cause of Death.	Recovered.	Period of Recovery or Death after Operation.	Why not removed.	Complications and Remarks.
. . . . .	1	Peritonitis . . .	.	15th day .	. . . . .	Ascites; uterus rem. also; to 13th d. did well.
Cystic, 40 lb. . . .	.	. . . . .	1	3 weeks .	. . . . .	Ascites.
. . . . .	1	Exhaustion . . .	.	6th day .	. . . . .	Second operation on same subject.
46 lb.	.	. . . . .	1	. . . .	. . . . .	
. . . . .	1	Shock	.	24 hours .	. . . . .	
Cyst, 50 lb. . . .	1	. . . . .	.	3d day . .	. . . . .	Ascites.
Cystic and solid, 481b.	.	. . . . .	1	. . . .	. . . . .	Since married.
28 lb.	.	. . . . .	1	. . . .	. . . . .	
40 lb.	.	. . . . .	1	. . . .	. . . . .	
30 lb.	1	Shock	.	36 hours .	. . . . .	
37 lb.	.	. . . . .	1	. . . .	. . . . .	Continues well.
30 lb.	1	Exhaustion . . .	.	9th day .	. . . . .	
20 lb.	1	Inflammation . .	.	3d day . .	. . . . .	
40 lb.	.	. . . . .	1	. . . .	. . . . .	
. . . . .	.	. . . . .	1	. . . .	Adhesions (?). .	
. . . . .	.	. . . . .	1	. . . .	do. . .	
. . . . .	.	. . . . .	1	. . . .	do. . .	
. . . . .	.	. . . . .	1	. . . .	do. . .	
. . . . .	1	Exhaustion . . .	.	35 days .	do. . .	Wound healed before death.
31 lb.	.	. . . . .	1	. . . .	. . . . .	Afterwards pregnant.
35 lb.	.	. . . . .	1	. . . .	. . . . .	
76 lb.	.	. . . . .	1	. . . .	. . . . .	
24 lb.	.	. . . . .	1	. . . .	. . . . .	
24 lb.	.	. . . . .	1	. . . .	. . . . .	
27 lb.	1	Infl. & obstr. of bowels	.	9th day .	. . . . .	
10 lb.	.	. . . . .	1	. . . .	. . . . .	
26 lb.	.	. . . . .	1	. . . .	. . . . .	
Small	.	. . . . .	1	. . . .	. . . . .	
25 lb.	1	. . . . .	.	2d day . .	. . . . .	
Not ovarian . . .	.	. . . . .	.	. . . .	Tubal fœtation .	Result not given.
. . . . .	.	. . . . .	1	3 weeks .	. . . . .	Pedicle attached to external wound.
28 lb.	.	. . . . .	1	3 weeks .	. . . . .	
. . . . .	.	. . . . .	1	5 weeks .	. . . . .	Ascites; during growth, had one child; fœcal matter with ligature.
Cystic and solid, 371b.	.	. . . . .	1	3 weeks .	. . . . .	Incision 12 inches (below umbilicus)!
Cyst, 31 lb. . . .	.	. . . . .	1	27 days .	. . . . .	Incision 10 inches (do.); menses 2d day.
. . . . .	.	. . . . .	1	6 weeks .	. . . . .	Pregnant since; incision 11 inches.
Cystic, 45 lb. . . .	1	Diabetes . . .	.	17th day .	. . . . .	
60 lb.	.	. . . . .	1	. . . .	. . . . .	Seventeenth day convalescent.
Fibrous uterus . .	.	. . . . .	1	2 weeks .	Uterus diseased .	Not ovarian.
37 lb.	1	Peritonitis . . .	.	12th day .	. . . . .	
Solid and vascular .	.	. . . . .	1	. . . .	Adhesions . . .	Tumor, ovarian, incised, nothing but blood came.
Cystic and solid, 381b.	1	Peritonitis . . .	.	36 hours .	. . . . .	Liquid removed with cup; peritonitis not suspected.
. . . . .	1	. . . . .	.	8 hours .	Solid tumor . .	Peritoneal disease; neither ovary affected.
. . . . .	.	. . . . .	1	. . . .	No tumor . . .	Probably fœcal, or spasm of intestines.
Cystiform	.	. . . . .	1	. . . .	Adhesions . . .	From operation; in 14 days as large as ever.
. . . . .	.	. . . . .	1	. . . .	. . . . .	Had 5 children since, 2 of them twins.
Cyst, 40 lb. . . .	.	. . . . .	1	1 month .	. . . . .	Had child since.
. . . . .	1	Peritonitis . . .	.	4th day .	Adhesions . . .	Ascites; movable before operation.
. . . . .	1	Shock	.	36 hours .	. . . . .	Twice pregnant during growth.
. . . . .	.	. . . . .	1	16 days .	. . . . .	Peritoneum dissected & pedicle tied to wound
Encysted	1	Nausea and diarrhœa	.	7 days .	. . . . .	Conceived and aborted during growth; 2d operation on same subject.
Cystic, 12 lb. 7 oz. .	1	Peritonitis . . .	.	6 days . .	. . . . .	
Cystic	.	. . . . .	1	. . . .	Adhesions . . .	Tent introduced.
. . . . .	.	. . . . .	1	. . . .	do. . .	
Fibrous uterus . .	1	Peritonitis . . .	.	3d day . .	. . . . .	Death hastened by venesection (?).
Cysts, 14 oz. . . .	.	. . . . .	1	2 months .	. . . . .	
Vascular cyst, 9 lb.	1	Peritonitis . . .	.	28 days .	. . . . .	An adhesion ligatured.
Cystic	1	Hemorr. & exhaust'n	.	5 hours .	. . . . .	Ascites; 1 pregnancy during growth.
Malignant	1	. . . . .	.	24th day .	Adhesions . . .	Ascites; prostitute.
. . . . .	1	Hemorrhage . . .	.	16 hours .	. . . . .	
Cystic	.	. . . . .	1	28 days .	. . . . .	Phlebitis.
Fibrous of uterus, 61b.	1	Hemorrhage . . .	.	17 hours .	. . . . .	No ovarian disease; uterus removed; ligature remained tight.
. . . . .	1	Exhausted . . .	.	4th day .	Adhesions . . .	
. . . . .	1	Peritonitis . . .	.	6 weeks .	. . . . .	A piece of omentum removed also.
. . . . .	1	. . . . .	.	5 days . .	Adhesions . . .	
Cystic, 26 lb. . . .	.	. . . . .	1	19 days . .	. . . . .	Cyst contained 1 pint of blood.

Number.	Operator.	Date of Operation.	Age.	Married or Single.		Ovary removed.		Both diseased.	Duration at Time of Operation.	Catamenia.	Previous Tappings.	Kind of Incision.		Adhesions.		Removed.		Partially removed.
				M.	S.	R.	L.					S.	L.	None.	Yes.	Yes.	No.	
185	Howard . .	Oct. 1852	17	.	1	.	.	. .	5 mo.	Suppression .	2	.	1	1	. . . .	1	.	. . . .
186	do. . .	Oct. 1852	28	1	.	.	.	L*	5 yr.	. . . . .	2	1	.	.	Adhesions	.	1	Part of cyst ex.
187	Handyside .	Sept. 1845	20	.	1?	1	1	*	20 mo.	Irregular . .	10	.	1	.	. . . .	1	.	. . . .
188	do. .	Sept. 1846	38	1	.	1	1	*	1 yr.	. . . . .	4	1	.	.	. . . .	1	.	. . . .
189	Jeaffreson . .	Mar. 1836	. .	1	.	.	1	. .	. . .	. . . . .	. .	1	.	.	. . . .	1	.	. . . .
190	Key	Aug. 1843	19	.	1	1	1	*	15 mo.	Regular . .	. .	.	1	1	. . . .	1	.	. . . .
191	King . . .	. . .	. .	.	.	.	.	. .	3 yr.	. . . . .	scv'r'l	1?	.	.	. . . .	.	1	. . . .
192	do. . . .	Mar. 1834	40	.	.	.	.	. .	. . .	. . . . .	. .	.	1	.	. . . .	.	1	. . . .
193	do. . . .	July, 1836	40	.	.	.	.	. .	6 yr.	. . . . .	. .	1	.	.	. . . .	1	.	. . . .
194	Kimball . .	Mar. 1855	25	.	1	.	.	. .	7 yr.	Regular . .	. .	1	.	1	. . . .	1	.	. . . .
195	L'Aumonier .	Jan. 1782	21	1	.	.	.	. .	. . .	. . . . .	. .	1	.	.	. . . .	1	.	. . . .
196	Lizars . . .	Oct. 1823	29	1	.	.	.	. .	8 yr.	Painful . .	. .	.	1	.	. . . .	.	1	. . . .
197	do. . . .	. . .	36	.	.	.	.	*	6 yr.	. . . . .	. .	.	1	1	. . . .	1	.	. . . .
198	do. . . .	Mar. 1825	25	.	.	.	.	. .	1 yr.	. . . . .	. .	.	1	.	Adhesions	1	.	. . . .
199	do. . . .	April, 1825	34	.	1	.	.	. .	6 yr.	Irregular . .	. .	.	1	.	do.	.	1	. . . .
200	Larrey . . .	. . 1846	33	.	.	.	.	. .	. . .	. . . . .	. .	.	.	.	. . . .	1	.	. . . .
201	Langenbeck .	. 1853 (?)	34	.	1	.	.	. .	5 yr.	. . . . .	. .	1	.	1	. . . .	1	.	. . . .
202	Lyon . . .	April, 1850	31	.	1	1	.	. .	2 yr.	. . . . .	3	1	.	.	Adhesions	1	.	. . . .
203	Lane . . .	Nov. 1843	28	.	1	.	.	. .	. . .	. . . . .	. .	1	.	1	. . . .	1	.	. . . .
204	do. . . .	Feb. 1844	47	1	.	.	.	. .	. . .	. . . . .	. .	.	1	.	Firm .	1	.	. . . .
205	do. . . .	Feb. 1844	43	1	.	.	.	. .	. . .	. . . . .	. .	.	1	.	Adhesions	.	.	*
206	do. . . .	Nov. 1844	20	.	1	.	.	. .	. . .	. . . . .	. .	.	.	1	. . . .	1	.	. . . .
207	do. . . .	Sept. 1845	40	1	.	.	.	. .	. . .	. . . . .	. .	.	1	.	Universal	.	.	*
208	do. . . .	. . 1845	39	.	1	.	.	. .	. . .	. . . . .	. .	.	.	1	. . . .	1	.	. . . .
209	do. . . .	Nov. 1846	31	.	1	.	.	. .	. . .	. . . . .	. .	.	.	.	. . . .	.	1	. . . .
210	do. . . .	April, 1847	40	1	.	.	.	. .	. . .	. . . . .	. .	1	.	.	Adhesions	.	1	. . . .
211	do. . . .	. . .	. .	.	.	.	.	. .	. . .	. . . . .	. .	1	.	.	. . . .	.	1	. . . .
212	do. . . .	Oct. 1848	54	.	1	.	.	. .	. . .	. . . . .	. .	.	.	.	Universal	.	1	. . . .
213	do. . . .	Nov. 1849	24	.	1	.	.	. .	. . .	. . . . .	. .	.	.	.	. . . .	.	1	. . . .
214	Litzenberg .	May, 1855	. .	1	.	1	.	. .	2 yr.	. . . . .	. .	.	1	.	Universal	1	.	. . . .
215	McDowell . .	Dec. 1809	. .	1	.	.	.	. .	. . .	. . . . .	. .	.	1	.	. . . .	1	.	. . . .
216	do. . .	. . .	. .	.	.	.	.	. .	. . .	. . . . .	. .	.	1	.	Adhesions	.	1	Evacuated
217	do. . .	. . .	. .	.	.	.	.	. .	. . .	. . . . .	. .	.	1	.	. . . .	1	.	. . . .
218	do. . .	April, 1817	. .	.	.	.	.	. .	. . .	. . . . .	. .	.	1	.	. . . .	1	.	. . . .
219	do. . .	. . .	. .	.	.	.	1	. .	. . .	. . . . .	4	.	.	.	Adhesions	1	.	. . . .
220	Martini . .	. 1828 (?)	24	1	.	.	.	L*	. . .	. . . . .	4	.	1	.	do.	.	.	*
221	Morgan . .	. . 1839	26	.	.	.	.	. .	. . .	. . . . .	. .	.	.	.	Slight .	.	1	. . . .
222	Mussey . .	July, 1828	40	1	.	.	.	L*	2 yr.	Regular . .	. .	1	.	.	Adhesions	.	1	Evacuated
223	March, N.York	Dec. 1849	49	1	.	1	.	. .	3 yr.	. . . . .	. .	.	1	1	. . . .	1	.	. . . .
224	Miller, Ky. .	April, 1848	37	.	.	.	.	. .	1 yr.?	. . . . .	. .	1	.	.	Adhesions	1	.	. . . .
225	Meeker . .	. . .	32	1	.	1	.	. .	2 yr.	. . . . .	Often	.	1	.	Extensive	1	.	. . . .
226	McRuer . .	Jan. 1853	28	1	.	.	.	. .	15 mo.	. . . . .	1	.	1	.	Adhesions	1	.	. . . .
227	Mercier . .	Dec. 1854	28	1	.	.	.	. .	1 yr.	Suppression .	7	.	1	.	Strong .	1	.	. . . .
228	Morris . . .	. . 1843	. .	.	.	.	.	. .	. . .	. . . . .	. .	.	1	.	. . . .	1	.	. . . .
229	Mott . . .	. . .	35	1	.	.	.	L*	. . .	. . . . .	. .	.	.	.	Adhesions	.	1	. . . .
230	do. . . .	. . .	40	.	1	.	.	. .	. . .	. . . . .	. .	.	.	1	. . . .	1	.	. . . .
231	Norman . .	Nov. 1850	23	.	.	.	.	. .	. . .	Regular . .	. .	1	.	.	Adhesions	.	1	. . . .
232	Phillips . .	Sept. 1840	23	.	1?	1	.	*	9 mo.	. . . . .	. .	1	.	1	. . . .	1	.	. . . .
233	Potter . . .	Mar. 1848	36	1	.	*	1	*	6 yr.	Suppression .	1	.	1	.	General	1	.	Right *
234	Peaslee . .	Sept. 1850	25	.	1	1	1	*	15 mo.	Regular . .	1	.	1	.	Slight .	1	.	. . . .
235	do. . . .	Feb. 1855	26	.	.	1	.	. .	4 yr.	Irregular . .	8	.	1	.	do. .	1	.	. . . .
236	do. . . .	Sept. 1853	35	1	.	.	1	. .	18 mo.	. . . . .	. .	.	1?	.	. . . .	1	.	. . . .
237	Prince . . .	Dec. 1847	25	1	.	.	.	R*	18 mo.	Irregular . .	. .	1	.	.	Adhesions	.	1	Incised *
238	do. . . .	. . .	40	1	.	.	.	. .	4 yr.	Regular . .	. .	1	.	.	. . . .	.	1	. . . .
239	Parkman . .	Jan. 1848	27	.	1	.	.	. .	1 yr.	do. . .	1	.	1	1	. . . .	1	.	. . . .
240	do. . .	Aug. 1851	41	1	.	.	.	. .	18 mo.	do. . .	1	1	.	1	. . . .	.	1	. . . .

Description.	Died.	Cause of Death.	Recovered.	Period of Recovery or Death after Operation.	Why not removed.	Complications and Remarks.
Cystic			1	8 weeks		Peritoneum dissected for ligature.
	1	Exhaustion		17 days	Adhesions	Two pregnancies during growth; tent left in.
Both cystic	1	Ileus		70 days		Bid fair to recover; pneumonia and phlebitis.
do. do. 10 lb.	1	Peritonitis				Ligatures through vagina.
Cystic			1			Ligature cut close; pregnancy during growth, and several since.
Cystic, 24 lb.	1	Peritonitis		5th day		Ascites.
Mesenteric gland			1		Mesenteric gland & escape of omentum.	Not ovarian; died a few months after.
			1		No tumor	See Synopsis. There appears to have been tumor.
Cystic			1	1 week		Ligature cut close.
			1	36 days		
			1	47 days		
			1	23 days	No tumor	Spinal curvature, obesity, and flatulence.
			1			Ascites; one ovary removed.
	1	Peritonitis		56 hours		
Fibrous of uterus			1		Adhesions and vascularity.	Had violent peritonitis; lived 25 years; both ovaries sound; uterus incised.
Piliferous			1			Spontaneous rupture, &c.; removed also a calculus from bladder.
Cystic			1	9 weeks		Pedicle attached to wound; colicky pains.
do.	1			Next day		
do.			1			Afterwards married, and had children.
do.			1			Died, 2 years after, of stricture of rectum.
do.			1		Adhesions	Lived several years.
do.			1			
do.	1	Peritonitis		3d day	Adhesions	
do.			1			Pelvic abscess ensued.
do.			1		No reason given	Died, two years after, from attempt to cause suppuration.
Solid			1	2 days	Adhesions	Ascites.
do.			1		Connections with uterus.	Died suddenly, 5 weeks after, of heart disease.
Cystic			1		Adhesions	Suppuration produced 2 years after; living in 1853.
Cystic			1		No reason	Cured of disease by inflammation of cyst.
Encysted, 3 galls.			1	22 days		Ligat. & pedicle fastened to external wound.
Cystic, 22½ lb.			1	25 days		Up in five days.
Colloid (?)			1		Adhesions	Returned in two years as large as ever.
Scirrhous, 6 lb.			1	5 weeks		Well in two weeks, excepting ligature.
do. 5 lb.			1			Hemorrhage; bad health after.
Cystic; pliliferous	1	Peritonitis		3 days		Adhesions tied.
Solid and cystic	1	Hemorrhagic		36 hours	Adhesions	Alcohol injected before; tent; no ascites.
Cystic	1			48 hours	do.	
do.			1		do.	Colon adherent to front of sac; tent inserted; recovered from disease also; child after.
Cystic, 18 lb.			1	34 days		Hemorrhage from slipping of ligature.
do. 9¼ lb.			1	31 days		
40 lb. 8 oz.	1	Hemorrhage		6 hours		Ascites and hernia.
Cystic			1	3 weeks		Vaginal prolapsus.
Fibrous, 6 lb.			1	17 days		Ascites; diagnosis, extra-uterine pregnancy or encysted ovary.
Cyst			1			
Malignant	1	Peritonitis		3d day	Adhesions	Circus-rider.
Fibrous	1	do.		5th day		Fibrous tumor of ovary; good case in every respect.
			1	3 weeks	Adhesions	Prolapse of vagina; bowel adherent anteriorly; tumor decreased afterwards.
Cystic	1	Diarrhœa		4th day		Ligature cut close.
Both cystic	1	Peritonitis		16th day		Upper ⅔ of right and all the left removed.
do. do.			1	2 months		Menses 3d day; niece of N. Smith's patient.
Solid and cystic, 18 lb.			1	6 weeks		Ascites, & vaginal prolapse; lig. into vagina; injections to peritoneum; adhesions lig'd.
Cystic	1	Peritonitis		5 days		Fibrous tumor of uterus; uterus removed also (see diagnosis).
Solid			1		Adhesions	Tent inserted; had child in 16 months.
Spleen	1			5th day		Tent inserted; tumor from spleen.
Fibrous tumor of uterus.	1	Hemorrhage		12 hours		Ascites; no fluid from tapping; uterus removed; ovaries sound.
Cyst			1		No pedicle found	Cyst refilled in two months.

Number.	Operator.	Date of Operation.	Age.	Married or Single.		Ovary removed.		Both diseased.	Duration at Time of Operation.	Catamenia.	Previous Tappings.	Kind of Incision.		Adhesions.		Removed.		Partially removed.
				M.	S.	R.	L.					S.	L.	None.		Yes.	No.	
241	Page	Aug. 1844	33	1	.	.	.	..	2 years .	Every 3 weeks	..	1	.	1	. . .	1	.	. . .
242	do.	July, 1846	39	1	.	.	.	..	15 months	Irregular . .	..	1	.	.	Adhesions	.	.	*
243	Paget	. . 1850	24	1	.	.	.	..	. . .	. . .	1	1	.	.	do.	.	1	Evacuated
244	Quittenbaum	. . . .	..	.	.	.	.	..	. . .	. . .	2	.	1	.	. . .	1	.	. . .
245	Rogers, N. York	Sept. 1829	20	.	1	.	.	..	2 years .	Suppressed .	7	.	1	.	Adhesions	1	.	. . .
246	Ritter	. 1832 (?)	31	1	.	1	.	..	. . .	. . .	2	.	1	.	do.	1	.	. . .
247	Smith, N.	July, 1820	33	1	.	1	.	..	7 years .	. . .	..	1	.	.	do.	1	.	. . .
248	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	1	.	.	. . .	.	1	. . .
249	do.	. . . .	..	.	.	.	.	..	. . .	. . .	sev'r'l	1	.	.	Adhesions	.	1	Evacuated
250	Southam	Oct. 1843	37	1	.	.	1	..	2 years .	Regular . .	..	.	1	.	do.	1	.	. . .
251	do.	. . . .	38	1	.	.	1	..	8 years .	. . .	..	.	1	1	. . .	1	.	. . .
252	do.	. . . .	26	1	.	.	.	..	10 months	. . .	..	.	1	.	. . .	1	.	. . .
253	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	1	.	.	Adhesions	.	1	. . .
254	Solly	June, 1846	24	.	1	1	.	*	. . .	Regular . .	..	1	.	1	. . .	1	.	. . .
255	Smith, Henry	. . 1854	23	1	*	.	.	..	. . .	. . .	..	1	.	.	. . .	.	1	. . .
256	Stilling	April, 1841	22	.	1	1	.	..	3½ years	. . .	..	1	.	1	. . .	1	.	. . .
257	Smith, Pr.	. . 1846	39	.	.	.	.	..	. . .	. . .	..	.	1	1	. . .	1	.	. . .
258	Stockwell	Nov. 1850	20	.	.	1?	.	..	2 years .	. . .	..	1	.	.	. . .	1	.	. . .
259	Smith, A. G.	May, 1823	30	1	.	1	.	..	. . .	Continued .	..	1	.	1	. . .	1	.	. . .
260	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	1	.	. . .
261	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	1	.	. . .
262	do. & McDowell	. . . .	..	.	.	.	.	..	. . .	. . .	90	.	.	.	. . .	.	1	. . .
263	Tanner	April, 1852	56	.	1	1	.	..	11 years	Ceased 11 years	1	1	.	1	. . .	1	.	. . .
264	do.	Mar. 1853	46	1	.	.	.	..	8 months	Irregular . .	1	1	.	.	. . .	1	.	. . .
265	Teale	April, 1854	21	.	1	1	.	..	18 months	Ceased 18 mos.	5	1	.	.	Slight .	1	.	. . .
266	Trowbridge	April, 1827	22	1	.	.	.	R*	2 years .	. . .	..	1	.	.	Adhesions	.	1	. . .
267	do.	. 1841 (?)	20	.	1	.	.	..	. . .	. . .	..	1	.	.	. . .	.	1	. . .
268	Trustram	. . 1844	18	.	.	.	.	..	. . .	. . .	..	1	.	1	. . .	1	.	. . .
269	Unknown	. . . .	34	.	1	.	.	*	8 years .	. . .	..	1?	.	.	Adhesions	.	1	. . .
270	do.	. . . .	48	.	.	.	.	..	1 year .	. . .	6	.	1	.	do.	.	.	. . .
271	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	1	.	do.	.	1	. . .
272	do.	. . . .	22	.	.	.	.	..	. . .	. . .	..	1	.	.	. . .	.	1	. . .
273	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	1	.	Adhesions	1	.	. . .
274	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	1	.	. . .
275	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	Adhesions	.	1	. . .
276	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	.	.	. . .
277	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	.	.	. . .
278	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	.	.	. . .
279	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	.	.	. . .
280	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	1	1	. . .	1	.	. . .
281	Van Buren	Nov. 1849	21	.	1	.	1	..	5 years .	Never . . .	..	.	1	.	Adhesions	1	.	. . .
282	do.	Nov. 1851	45	1	.	.	1	..	7 years .	Menorrhagia	..	.	1	.	do.	1	.	. . .
283	Veaullegeard	Sept. 1847	25	.	.	.	1	..	5 years .	Irregular . .	52	.	1	.	. . .	1	.	. . .
284	Warren, J. C.	Nov. 1830	40	.	1	.	.	..	. . .	Profuse . .	..	.	1	.	. . .	1	.	. . .
285	Walne	Nov. 1842	58	1	.	1	.	..	2 years .	Ceased 4 years	..	.	1	1	. . .	1	.	. . .
286	do.	May, 1843	57	1	.	.	1	..	. . .	. . .	..	.	1	1	. . .	1	.	. . .
287	do.	Sept. 1843	20	.	1	.	1	..	4 years .	Regular . .	..	.	1	1	. . .	1	.	. . .
288	do.	Oct. 1843	54	1	.	.	.	..	4 years .	Ceased 14 years	3	1	.	.	Extensive	.	1	. . .
289	do.	Oct. 1843	45	.	.	.	1	..	. . .	. . .	Many	.	1	1	. . .	1	.	. . .
290	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	1	.	Extensive	1	.	. . .
291	do.	April, 1844	30	.	1	.	.	..	3 years .	. . .	..	1	.	.	. . .	.	1	. . .
292	West	Nov. 1837	45	1	.	.	.	..	13 years	. . .	..	1	.	.	. . .	1	.	. . .
293	do.	. . . .	23	.	1	.	.	..	. . .	. . .	..	.	.	.	. . .	1	.	. . .
294	do.	. . . .	40	1	.	.	.	..	. . .	. . .	1	.	.	.	Adhesions	.	1	. . .
295	do.	. . . .	24	.	.	.	.	..	. . .	. . .	Often	.	.	.	. . .	1	.	. . .
296	Webster	. . 1844	37	.	.	.	.	..	. . .	. . .	..	.	1	.	Adhesions	.	1	. . .
297	Woyelkowski	April, 1844	40	1	.	1	.	..	9 mos. (?)	Ceased 15 mos.	..	.	1	1	. . .	1	.	. . .
298	Woodward	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	1	.	. . .
299	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	1	.	. . .
300	do.	. . . .	..	.	.	.	.	..	. . .	. . .	..	.	.	.	. . .	1	.	. . .

Description.	Died.	Cause of Death.	Recovered.	Period of Recovery or Death after Operation.	Why not removed.	Complications and Remarks.
Cystic, 5½ lb.	.	.	1	3 months	.	Ascites; menses regular since.
Cystic	1	Hemorrhage	.	36 hours	Adhesions	Ascites.
Cyst	1	.	.	96 hours	do.	Five gallons pus escaped during operation.
.	.	.	1	10 days	.	
Solid and cystic, 3½lb.	.	.	1	6 weeks	.	Accused of pregnancy; ligatures cut close.
Lardaceous, 12 lb.	.	.	1	9 weeks	.	Ascites; began during pregnancy.
Cystic	.	.	1	3 weeks	.	Three pregnancies during growth; 3 times ruptured.
Uterine	.	.	1	.	Tumor of uterus	
Cystic	.	.	1	.	Adhesions	Ascites; wound healed; in few weeks, refilled and died.
Cystic sarcoma	.	.	1	1 month	.	Ascites; ligature escaped into abdomen; well three years after.
Cyst, 31 lb.	.	.	1	7 weeks	.	
Fibrous, 9 lb.	1	Pneumonia (?)	.	7th day	.	Fibrous and cerebriform ovary.
Cystic	.	.	1	.	Adhesions	Died from suppuration of cyst afterwards.
.	1	Hemorrhage	.	11 hours	.	Left ovary enlarged.
.	.	.	1	21 days	No tumor	Prostitute; ovaries sound; thickened omentum.
Cystic	1	Hemorr. from pedicle	.	3 days	.	
Cystic and solid, 30lb.	1	Shock	.	4 hours	.	Chronic peritonitis.
.	1	.	.	3 days	.	
Scirrhous	.	.	1	25 days	.	
.	.	.	1	.	.	No details.
.	1	Secondary hemorr.	.	Some days	.	Animal ligature.
No tumor	1	.	.	.	No tumor	Ascites; intestines agglomerated by adhesions.
Cystic	.	.	1	6 weeks	.	
Malignant	1	Peritonitis	.	5½ days	.	Disease in broad ligament; ovary healthy; hemorrhage.
Multilocular	1	Hemorrhage	.	22 hours	.	Pedicle fastened to external wound; colon in front.
Cystic	.	.	1	15 days	Adhesions	Pregnancy and miscarriage; tent; vinous injection; child after.
Not ovarian	.	.	1	Several w'ks	No tumor	Ascites, chronic peritonitis, and enlargement of colon.
Cystic	.	.	1	.	.	
Fibrous, 46½ lb.	1	Peritonitis	.	3 days	Adhesions	Uterus perforated by trocar. (Sargent.)
.	1	Tetanic symptoms	.	6th day	do.	. . . . . (Froriep.)
.	1	.	.	.	do.	. . . . . (A. B.)
No tumor	.	.	1	.	No tum. mentioned	. . . . . (C. D.)
.	1	.	.	.	.	. . . . . (E. F.)
.	1	.	.	.	.	. . . . . (G. H.)
Solid and cystic	1	.	.	5 days	Adhesions	. . . . . (Hargraves.)
.	1	.	.	.	.	. . . . . (Lee.)
.	1	.	.	.	.	. . . . . (do.)
.	1	.	.	.	.	. . . . . (do.)
.	1	.	.	.	.	. . . . . (do.)
.	1	Peritonitis	.	6th day	.	. . . . . (Mr. W. B-k-s-w.)
Fibrous, 7 lb.	.	.	1	19th day	.	Procidentia uteri; peritoneum dissected for ligature, cut close; menses appeared.
Encephaloid, 8 lb.	1	Peritonitis	.	39 hours	.	Vaginal and cyst. prolapse.
Cystic and solid, 181b.	.	.	1	25 days	.	
Scirrhous, 25 lb.	1	Hemorrhage	.	On table	.	
Cystic, 16 lb.	.	.	1	65 days	.	Ligature escaped.
do. 16½ lb.	.	.	1	5 weeks	.	Hemorrhage and phlebitis.
do. 28 lb.	.	.	1	17th day	.	
.	.	.	1	.	Adhesions	Tapped afterwards.
Cystic and solid, 14lb.	1	Peritonitis	.	9th day	.	Ascites; and fibr.tum.of uterus, not remov'd.
.	1	.	.	.	.	
.	.	.	1	.	No reasons	From disease also, apparently.
Cystic	.	.	1	4 days	.	Ligature cut close.
do.	.	.	1	.	.	
do.	.	.	1	.	Adhesions	Tapped seventeen times since.
do.	1	.	.	.	.	
do.	.	.	1	.	Adhesions	Died of disease in two months.
Lardaceous, 6½ lb.	.	.	1	25 days	.	Ascites; procidentia uteri; children after.
.	1	.	.	2 days	.	
.	1	.	.	.	.	
.	1	.	.	.	.	

To the preceding list might be added the cases mentioned by Velpeau, Berard's case,[1] Roux's[2] case of extraction of an ovarian cyst through the posterior wall of the vagina, and the five additional cases claimed to have been operated upon by Burnham:[3] but they are either too vaguely stated, or on insufficient authority; and I content myself with merely mentioning them.

A large number of cases also are on record of hernia of the ovary, in which the organ was removed; among others, Nourse's case,[4] given in Pott's works; two cases by Lassus;[5] several in Boivin and Dugés; one by Guersant;[6] and Dr. Parker, of New York, reports[7] an operation for femoral hernia, in which the fimbriated extremity of the Fallopian tube was removed, though the ovary itself appears to have been returned into the abdomen. But such cases hardly come under the head of Ovariotomy, in the usually received meaning of that term.

Before proceding to an analysis of the cases, it is necessary to allude to the different methods of operation which have been employed. These differences consist chiefly in the length of the incision; the removal of the cyst entire, or after reducing its size by evacuation of the contents; and the management of the ligatures.

The importance of careful preliminary and consecutive treatment is of course, as in most other capital operations, agreed to by all. The temperature of the room in which the peritoneum is to be so largely exposed, it is generally stated, should be about seventy-five degrees; though, by some few, this is considered a matter of little importance. Another detail, to which it is perhaps worth while to allude, is the practice

[1] See p. 2. [2] Dict. de Médecine, t. xxii. p. 563. [3] See p. 51.

[4] Usually called "Pott's case." It was a double hernia; and both ovaries were removed.

[5] Path. Chirurgicale, Paris, 1809, t. ii.

[6] Archives Générales, t. xxvii. p. 501.

[7] Med. Times, January, 1855.

of marking, with iodine or nitrate of silver, transverse lines upon the surface, to be crossed by the incision, as a guide to the proper introduction of the sutures. If the abdomen is greatly distended, and the incision large, it is obvious that these marks would, though not absolutely necessary, much facilitate the accurate juxtaposition of the edges of the wound in the collapsed abdominal walls.

The advocates of the large section, or major operation, used by McDowell, Lizars, &c., claim that by it the tumor is extracted not only with greater facility, but entire, thus preventing the escape of any part of its contents into the peritoneum; also that adhesions, if any, and the ligatures, are more easily managed, — advantages which, in their view, more than counterbalance the additional wound, and handling of the peritoneum.

The credit of proposing the small incision, or minor operation, is given usually to Mr. Jeaffreson (of Framlingham, England); though it had been alluded to by William Hunter,[1] and was practised by Dr. Nathan Smith and others in this country, some time before. Professor Sacchi[2] attributes this proposal to Monteggia. It was designed thus to obviate the large wound, and exposure of the peritoneum and viscera, by evacuating the contents of the sac, then drawing the latter through, and applying the ligature. When practicable, it would certainly seem to be the most rational proceeding; but the existence of adhesions, a thickened sac, or solid contents, may render such a course impossible or very difficult, protracting the operation, and requiring possibly the introduction of the hand to effect the removal, or an extension of the wound to such a degree as to render it, after all, a large incision.

As before stated, it appears to me that the management of the ligatures and the divided pedicle is of vastly more impor-

[1] Med. Observations and Inquiries, vol. ii.

[2] Bulletin Général de Thérapeutique, &c., t. iv. 1833, p. 311.

tance than any fixed rule as to the size of the incision. Setting aside errors of diagnosis, the great dangers of the operation are peritonitis and hemorrhage. Any device, therefore, which removes the necessity of leaving a bundle of ligatures and a sloughing stump within the abdominal cavity, will materially increase the chances of escape for the patient.

In some few cases, it will be noticed that hemorrhage has arisen from unobserved vessels in the divided adhesions (as in No. 75); but, in the majority of instances, it came from the pedicle itself, either from shrinking of the tissues or slipping of the ligature, and this notwithstanding the utmost care in the application. Various contrivances have been suggested for the prevention of so fatal an accident, — as tying the pedicle in different portions by a double ligature, passed through and closed in opposite directions; two double ligatures through at right angles, and tying as in nævus; carrying the ends of the ligature through the pedicle on the distal side of the stricture; securing each vessel separately, and then surrounding the whole pedicle by a circular ligature, &c.

A plan for diminishing the liability to peritonitis was adopted by Dr. Van Buren, of New York,[1] which consisted in dissecting away the peritoneal covering of the pedicle sufficiently for the application of the ligature beneath it, thus preventing its being involved in the constriction; and the same thing was practised soon after by Mr. Erichsen,[2] of London, with the valuable addition to it of bringing the pedicle, ligatures, and all, to the external wound, and fastening them there, as was done in Mr. Duffin's[3] case. This plan, in whole or in part, has since been carried out in several instances.[4] To diminish irritation, the ligatures have sometimes been cut close, removing the ends. In 1846, Mr. Handyside,[5] with the same view, carried the ligatures through the recto-vaginal cul de sac into the vagina; as did

[1] No. 281, Synopsis. [2] No. 168, Synopsis. [3] No. 149, Synopsis.
[4] Nos. 185, 201, 77, 265, 214, and 80, of Synopsis. [5] No. 188, Synopsis.

also Dr. Peaslee, in 1855.[1] In one of Dr. Atlee's cases (No. 14), no ligature whatever was required, torsion being sufficient.

ANALYSIS OF THE CASES.

I. Of the three hundred cases, the operation was completed, by the removal of the tumor, in 208; which, excluding four not mentioned, gives us 70.27 in 100.

The tumor could not be removed in 78; or one in $3\frac{31}{39}$, or 26.35 in 100.

The tumor was partially removed in 10; or one in $29\frac{3}{5}$, or 3.37 in 100.

The removal of the tumor is not mentioned in four.

II. In one case, the result is not stated; of the remaining 299 operations, 179 recovered, 120 died; or one in $2\frac{59}{120}$, or 40.13 in 100.

III. Of the 208 cases in which the operation was completed, 119 recovered, or 57.21 in 100; 89 died, or one in $2\frac{30}{89}$, or 42.78 in 100.

IV. The above gives us, therefore, 300 operations for the removal of ovarian disease, of which 119 only were successful *in the removal of the disease and the recovery of the patient*; or one in $2\frac{62}{119}$, or 39.66 to 100, — less than two-fifths.

V. Of the 78 cases in which the tumor could not be removed, 55 recovered from the operation, or 70.51 in a hundred; 22 died, or one in $3\frac{6}{11}$, or 28.20 in 100; and in one the result is not given.

VI. Of the ten cases in which the tumor was partially removed, five died, and five recovered from the operation.

This does not include those cases in which the cyst or tumor was emptied or incised, or a tent introduced. Of the 88 cases included in these two sections, V. and VI., in which the operation remained unfinished, 27 died; or one in $3\frac{7}{27}$, or 30.68 in 100.

[1] No. 235, Synopsis.

VII. Of the above 88, in which the operation was abandoned or only partially completed, the causes of failure were as follow: —

68 from adhesions; of whom 24 died, 44 recovered.

One was from the bulk of the tumor being uterine; both ovaries diseased; recovered.

Three uterine; not ovarian; recovered.

One "no pedicle" found; recovered.

One tubal fœtation; result not stated.

One "loose hydatids," and adhesions; recovered.

One pediculated tumor of spleen; died fifth day.

One solid tumor; not ovarian; died; neither ovary affected.

Three no reason given; recovered.

Eight no tumor found; seven recovered; one died. These eight cases, in which there was no tumor, were as follow: —

No. 162, fecal collection, or intestinal spasm; recovered.

No. 191, mesenteric glands; recovered.

No. 192, no tumor could be found at the time of operation, though it apparently existed! recovered.

196, spinal curvature; obesity and flatulence;[1] recovered.

No. 255, thickened omentum; recovered.

No. 262, intestines massed together by adhesions; died.

No. 267, chronic peritonitis, and enlargement of colon; recovered.

No. 272, no tumor; no explanation; recovered.

VIII. Of 92 cases of more or less extensive adhesions, with removal of the ovary, 48 recovered; or 52.17 in 100. 44 died; or one in $2\frac{1}{11}$, or 47.82 in 100.

IX. Of 50 cases non-adherent, with removal of the ovary, 34 recovered; 16 died; or one in $3\frac{1}{8}$, or 32 in 100.

[1] Mr. Jeaffreson mentions an instance in which a surgeon tapped with a fatal result. The "sole affection was a fatty abdomen." Lond. Med. Gaz. vol. xxxiv. p. 702.

X. The incision is mentioned in 260 cases. Of these, 117 were short, 143 long.[1]

Of the 117 short incisions, the operation was completed in 60; of whom 37 recovered, 23 died; or one in $2\frac{14}{23}$, or 38.33 in 100.

Of the 117 short incisions, the operation was abandoned or incomplete in 57; of whom 44 recovered, 13 died; or one in $4\frac{5}{13}$, or 22.80 in 100.

Of the whole 117, 81 recovered, 36 died; or one in $3\frac{1}{4}$, or 30.76 in 100.

Of the 143 long incisions, the operation was completed in 123; of whom 72 recovered, 51 died; or one in $2\frac{7}{17}$, or 41.46 in 100.

Of the 143 long incisions, the operation was abandoned or incomplete in 20; of whom 11 recovered, 9 died; or one in $2\frac{2}{9}$, or 45 in 100.

Of the whole 143, 83 recovered, 60 died; or one in $2\frac{23}{60}$, or 41.95 in 100.

XI. Of the 76 cases in which previous tapping is noted, in 53 there were adhesions; in 14, there were no adhesions; in 9, adhesions not mentioned.

In the 14 who had been tapped, in whom no adhesions were found at the operation, five had been tapped twice; one six times; one, many times; and seven, once.[2]

XII. Of the 221 cases in which the age is given at the time of the operation, the average is 34.33 years: —

Under 20,	8 cases;	4 recov'd,	4 died;	or $\frac{1}{2}$,		or 50.00 in 100.
Fr. 20 to 30,	74 „	45 „	29 „	or 1 in $2\frac{16}{29}$,		or 39.18 „ 100.
„ 30 „ 40,	72 „	43 „	29 „	or 1 „ $2\frac{14}{29}$,		or 40.27 „ 100.
„ 40 „ 50,	48 „	27 „	21 „	or 1 „ $2\frac{6}{21}$,		or 43.75 „ 100.
„ 50 „ 60,	16 „	12 „	4 „	or 1 „ 4,		or 25.00 „ 100.
„ 60 „ 70,	3 „	2 „	1 „	or 1 „ 3,		or 33.33 „ 100.

[1] See definition, p. 34.

[2] These do not include cases tapped, within a few days of the operation, for purposes of diagnosis.

The youngest, age 17 (No. 185), recovered; the oldest, age 68 (No. 17), recovered.

XIII. Of the 124 *ovarian* cases, in which the duration of the disease at the time of the operation is given, there were of less than —

1 year's growth,	11;	7 recovered,	4 died;	or 1 in $2\frac{3}{4}$, or 36.36 in 100.
1 to 2 yr's „	27;	15 „	12 „	or 1 „ $2\frac{1}{4}$, or 44.44 „ 100.
2 „ 3 „ „	20;	13 „	7 „	or 1 „ $2\frac{6}{7}$, or 35.00 „ 100.
3 „ 4 „ „	12;	9 „	3 „	or 1 „ 4, or 25.00 „ 100.
4 „ 5 „ „	12;	8 „	4 „	or 1 „ 3, or 33.33 „ 100.
5 „ 6 „ „	7;	4 „	3 „	or 1 „ $2\frac{1}{3}$, or 42.85 „ 100.
6 „ 7 „ „	7;	4 „	3 „	or 1 „ $2\frac{1}{3}$, or 42.85 „ 100.
7 „ 8 „ „	8;	5 „	3 „	or 1 „ $2\frac{2}{3}$, or 37.50 „ 100.
8 „ 9 „ „	2;	1 „	1 „	or 1 „ 2, or 50.00 „ 100.
9 „ 10 „ „	2;	1 „	1 „	
10 „ 15 „ „	7;	7 „	0 „	
15 „ 20 „ „	4;	1 „	3 „	or 1 „ $1\frac{1}{3}$, or 75.00 „ 100.
20 „ 25 „ „	2;	0 „	2 „	
Many „ „	3;	2 „	1 „	or 1 „ 3, or 33.33 „ 100.

In one case (No. 83), the disease is said to have commenced at nine years of age; in another (No. 86), at twelve years three months; and in four cases (Nos. 82, 150, 281, 287), at sixteen years, — the first of these (No. 82) having borne one child at thirteen and one at fifteen years!

XIV. In 62 cases of ovarian disease, in which the condition of the catamenial function is noted at the time of the operation, 30 continued regular; 22[1] irregular, three of which are noted as becoming regular after the removal of the disease; one, age twenty-one, in whom it had never appeared, became regular soon after; in 7, there was suppression, one of them becoming pregnant afterwards; in 2, menorrhagia, both of which proved to be malignant.

XV. Of 209 patients mentioned, 142 were married,[2] 67 sin-

[1] Several of these probably menorrhagic.

[2] Or known to have had connection. It does not follow that the disease is more common in the married, if it be true, that few women, in proportion, pass through life single.

gle; of the 142 married, 84 recovered, 57 died (in one the result not stated); or one in $2\frac{9}{16}$, or 40.42 in 100; of the 67 single, 43 recovered, 24 died; or one in $2\frac{19}{24}$, or 35.82 in 100.

XVI. Of the two women pregnant at the time of the operation, one (No. 15) died, the thirtieth day, of starvation; no miscarriage. The other (No. 31) miscarried the second day, and recovered.

Conception occurred once during the growth of the tumor in eleven instances (Nos. 7, 15, 31, 70, 101, 112, 151, 176, 246, 169, 266); and, in the last two, abortion followed. In two instances (167, 186), conception occurred twice during growth of the tumor; in one case, it occurred three times (No. 247).

Conception occurred after the removal of the disease in fourteen instances; in one of them (164) five times, one being of twins. In three of these cases the right, and in three the left, ovary had been removed; eight not mentioned. In three other cases, in which the operation was abandoned, and the patient cured eventually by "incision, and introduction of tent," children were borne afterwards; and, in two of these cases, the disease was in the right, and in one in the left, ovary.

XVII. Of 103 cases specified, the right ovary alone[1] was diseased in 44; or one in $2\frac{15}{44}$, or 42.71 in 100. The left was diseased in 35; or one in $2\frac{33}{35}$, or 33.98 in 100. Both ovaries were diseased in 24; or one in $4\frac{7}{24}$, or 23.30 in 100.

Of these, the right ovary was removed 41 times; and 30 recovered, 11 died; or one in $3\frac{8}{11}$, or 26.82 in 100. The left ovary was removed 35 times; and 19 recovered, 16 died; or one in $2\frac{3}{16}$, or 45.71 in 100. Both ovaries were removed 13 times; and 5 recovered, 8 died; or one in $1\frac{5}{8}$, or 61.53 in 100. In 14 instances, the operation was abandoned, with 8 recoveries to 6 deaths.

[1] Ramsbotham thinks the left ovary to be more commonly affected, as does Chereau also. Bluff gives thirty-one of right to twenty-three of left; and Dr. Clay (loc. cit. p. 285) says that four-fifths of the cases he has seen have been of the right ovary.

XVIII. Both ovaries and the uterus were removed in three cases (85, 102, 119); one recovered, two died. Both ovaries, and a fibrous tumor of the pelvis, were removed in one case (25); death ensued. The left ovary and the uterus were removed in one case (236); death ensued. The left ovary, and a fibrous tumor of the uterus, were removed in one case (84); death ensued.

XIX. The cause of death is stated in 85 of the fatal cases: —

Peritonitis,	36;	or 1 in	$2\frac{13}{36}$,	or 42.35	in 100	fatal cases.	
Hemorrhage,	20;	or 1 „	$4\frac{1}{4}$,	or 23.52	„ 100	„	„
Exhaustion,	12;	or 1 „	$7\frac{1}{12}$,	or 14.11	„ 100	„	„
Shock,	4;	or 1 „	$21\frac{1}{4}$,	or 4.70	„ 100	„	„
Pneumonia,	2.						
Diarrhœa,	2.						

And of each of the following, one; i. e., inflammation, inflammation and obstruction of bowels, ileus, gangrene of jejunum, nausea and diarrhœa, starvation from nausea, diabetes, tetanic symptoms, and bursting of hepatic abscess.

Time of death given in 31 cases of peritonitis averages the eighth day; in 17 cases of hemorrhage, twenty-two hours.

One case of hemorrhage died the sixth day (source not given); one died the fifth day, do.; and the remaining one died "some days" after the operation.

XX. In 102 cases in which the period is given, we have eight days, within a fraction, as the time at which death resulted.

In 81 cases in which the period is given, we have a fraction over thirty-one days as the period of recovery.

XXI. Of six cases (77, 80, 149, 201, 214, 265) in which the pedicle was fastened in the external wound, thus removing from the peritoneum the irritation caused by the ligatures and the strangulated stump, four recovered, two died.

In two cases (185, 281), where the ligature was applied beneath the peritoneal investment of the pedicle, recovery

followed; and in one case (No. 168), where both these proceedings were adopted, the patient recovered very rapidly.

XXII. Errors, illustrative of the difficulties of diagnosis: —

Nos. 8 and 248, the mass of the tumor proved to be uterine.

Nos. 15 and 31, pregnancy co-existed.

Nos. 85, 102, 119, both ovaries and uterus found to be diseased.

Nos. 162, 196, 255, 262, 267, 272, no tumor found after incision.

No. 106, large number of "loose hydatids;" ovary, uterus, liver, and spleen diseased.

Nos. 157, 173, 180, 199, 239, fibrous tumors of uterus; no ovarian disease.

No. 161, solid tumor, not ovarian.

Nos. 70 and 191, mesenteric tumors.

No. 238, pediculated tumor of the spleen.

No. 192, tumor could not be found, though probably existing!

No. 264, malignant disease in broad ligament.

No. 148, tubal fœtation.

No. 6, diagnosticated right ovary, left removed.

No. 227, diagnosticated extra-uterine pregnancy, or encysted ovary; proved to be fibrous.

No. 236, diagnosticated non-adherent cyst of right ovary; proved to be fibrous tumor of uterus, involving left ovary.

No. 166, very movable before operation; proved to be so adherent that it could not be removed.

No. 269, uterus tapped.

Nos. 74 and 75, extirpation not intended, but rendered necessary, after the operation was begun, by vascularity of the cyst.

To these might be added those in which the operation could not be completed, owing to unforeseen adhesions (setting aside exploratory operations, perhaps), and many in which

unexpected disease was found of the uterus, liver, or peritoneum. How many of those cases which proved to be malignant disease of the ovary would have been attempted, had this been foreseen, we have no means of deciding. Probably the majority of them could be ranked, with safety, under the head of errors of diagnosis.

From this analysis, we may gather the following facts: —

In three-tenths of the cases (29.72 in 100, Section I.), the operation could not be completed.

The rate of mortality in all the operations (Section II.) was 40.13 per cent.

In seven-tenths of the cases (Section III.), the operation was completed, with a resulting mortality of 42.78 per cent.

In the unfinished operations (Section VI.), the mortality was 30.68 per cent.

The proportion between the whole number of recoveries, *after the removal of the tumor*, and the whole number of operations undertaken in the hope of such a result, we find to be (Section IV.) as 39.66 to 100, or less than two-fifths!

Adhesions caused the abandonment of the operation in 22.06 per cent of the whole number, or caused 77.27 per cent of the failures (Section VII.).

No tumor was found in nearly three per cent of the whole (2.66 per cent, Section VII.).

Where adhesions complicated the removal, 47.82 per cent died; where no adhesions complicated the removal, 32 per cent only died.

Of the whole number of short incisions, 30.76 per cent died; of those completed, 38.33 per cent died; of those not completed, 22.80 per cent only died.

Of the whole number of long incisions, 41.95 per cent died; of those completed, 41.46 died; and of those not completed, 45 per cent died.

Previous tapping does not always cause adhesions.

As far as these cases go, the mortality is least between the ages of fifty and sixty, and greatest under twenty.

The mortality is least when the disease is of between three and four years' duration.

There is but little difference in the mortality between the married and single.

The right ovary is more often diseased than the left, though less so than often stated.

Of the above fatal cases, 42.35 per cent were from peritonitis, 23.52 per cent from hemorrhage.

Death ensued, upon an average, the eighth day; the average of deaths from peritonitis being also the eighth day; and those from hemorrhage in twenty-two hours.

And, finally, in more than ten per cent of the cases, important errors of diagnosis occurred.

We have seen, in Section IV., that more than three-fifths of the operations are unsuccessful; and, by Section II., that 40.13 per cent are fatal. Dr. Churchill makes it one in $2\frac{3}{4}$, or over 36 per cent; Dr. Cormack, over 38 per cent; Dr. Robert Lee, over 37 per cent; Mr. Phillips, over 39 per cent; Dr. Ashwell's Table, over 36 per cent. Dr. Atlee makes the mortality only $26\frac{1}{2}$ per cent; but this is done, as will be seen on reference to the last six sections of his analysis, by throwing out of the calculation twenty-seven cases which were complicated with other diseases, six cases in which accidental occurrences were supposed to be the cause of death, and three cases in which death did not ensue for some time after the operation. Now, these same complications are just as likely to be met with, in the same frequency, in all future operations, unless the differential diagnosis of ovarian disease is greatly improved. The question is not, what the rate of mortality would be if this diagnosis could be perfected, if only just the right cases were taken, if only no accidents happened; for these always have occurred, and always will occur, in a certain proportion of cases, even under the most skilful

hands. The true question is, What is the rate of mortality, from this operation, in the present state of our medical and surgical science? It is manifestly for the advantage of the operation itself, to say nothing of the unfortunate subjects of it, that a perfectly fair answer should be given to this question. If these tables are correct, that answer is, that 40.13 per cent are fatal, and that two-fifths only are successful. Nor does this look so forbidding, when we compare it with other capital operations. The lowest rate of mortality, after amputations of large limbs, is shown in Dr. Hayward's statistics[1] of the Massachusetts General Hospital; 22.69 per cent only resulting fatally. Elsewhere, however, we find it to range much higher; viz.: —

In the New-York hospital,[2] 39.68 per cent of amputations of large limbs result fatally. In the Paris hospitals,[3] from 1836 to 1840, of the thigh amputations in pathological cases, thirty-eight per cent died, and, in traumatic cases, forty-nine per cent. M. Textor, of Wurtzburg, gives forty-three per cent as the rate, in operations for strangulated hernia, between 1836 and 1842; and a writer in the "British and Foreign Medical Review," April, 1853, gives still more fatal results. He says, that, if we take the major amputations of the limbs, primary and secondary, in Paris, the rate of mortality is upwards of fifty per cent; in Glasgow, forty per cent; in British hospitals, upwards of twenty-eight per cent. Mr. Syme says that the evidence of hospital statistics shows that sixty to seventy per cent die after thigh amputations. Mr. Phillips, from nine hundred and eighty-seven cases, makes it forty-four per cent. Mr. Curling, from one hundred and thirty-one cases of thigh and leg, rates it at forty-one per cent. Dr. Inman, from three hundred and fifty-eight cases of amputations generally, primary and secondary, for accident or disease, gives over thirty-two per cent. Fenwick, four thousand nine

[1] Boston Med. and Surg. Jour. October, 1850.
[2] Lente's Statistics; Trans. Am. Med. Assoc. 1851.
[3] Malgaigne's Statistics in Gaz. des Hospitaux, June, 1844.

hundred and thirty-seven cases ; deaths, over thirty-two per cent. Cox, from eighty-four cases hip-joint, rates it as over sixty-nine per cent. Sir Astley Cooper and Dr. Inman, in operations for hernia, make over forty-six and forty-seven per cent respectively. And Mr. Phillips and Dr. Inman, for ligature of large arteries, make the mortality thirty-three per cent.

But it is often said that such a comparison as this is not a fair one, for the reason, that, in most capital operations, the only alternative is death. This assertion is doubtless true of many of the traumatic cases, in which amputation, or ligature of large arteries, is performed, and in hernia also: but ligature for aneurism, amputations for necrosis, articular disease, or other pathological states, derive no advantage from this argument ; for they are certainly as amenable to medical treatment as are those cases of ovarian disease which have usually been operated on.

It is objected also to this operation, that cystic tumors of the ovary are of slow growth, and that temporary relief may usually be obtained by tapping, or medical treatment. It has already been shown that these medical resources are useless, if not injurious. And, even if tapping were free from the dangers attributed to it,[1] it is, at the best, a mere palliative, and, after being once done, requires repetition at constantly diminishing intervals ; death ensuing in a large proportion of cases, — according to Dr. Bright,[2] within four years of the first operation. Nor is the statement as to their slow growth a correct one ; for, with rare exceptional cases, death from exhaustion may be said to result, upon an average, in five or six years, excluding cases of doubtful diagnosis. Section XIII. of the analysis shows that about one hundred, out of one hundred and twenty-four, were willing, at any rate, to submit to a dangerous operation for relief before the tumor had attained eight years of growth.

[1] Dr. Buehring, of Berlin, says that tapping carries off one in five in those cases in which it is performed for the first time. Monthly Retrospect of Med. Sciences, vol. ii. 1849.

[2] Guy's Hospital Reports, April, 1838, p. 188.

As to the plan of establishing suppurative inflammation of the cyst with an external opening, by any of the methods reviewed, although the cases recorded thus far show a lower rate of mortality than extirpation, yet the operation can be considered as having been successful in only 30.13 per cent; and even of these, the *cyst* only being obliterated, there is no security against the development of another; while, of the cases of entire extirpation of the organ diseased, 39.66 per cent, at least, are *radically* cured. The remaining proposal, i.e., injection of the cyst, though it bids fair to prove a most valuable resource, is applicable only to cases of unilocular, non-adherent cyst, even should a more extended experience show that it is as free from danger as it is claimed to be. Various other objections have been advanced to Ovariotomy; but they can all be made to apply with equal force to every kind of capital operation, as Professor Simpson[1] has conclusively shown.

By far the strongest objection would appear to consist in the imperfection of the diagnosis. Were this removed, the rate of mortality would doubtless be less than that of any of the larger operations; and, even in its present state, we have seen that it compares not unfavorably with them.

If then, in view of the foregoing statistics, we may claim for the operation, that it is, in certain cases, justifiable, which are these cases? or, in other words, "Under what circumstances may the operation be regarded as safe and expedient?"

In view of the fact that the tumor is occasionally of very slow growth, and that the general health of patients suffering from cystic disease of the ovary is ordinarily good, unless inflammation of the cyst supervenes, or some accident causes its rapid development, we should say that it was neither safe nor expedient to put in force any operative procedure, before constitutional symptoms are excited by the suffering from dis-

[1] Obstetrical Works, vol. i. p. 263, art. Ovariotomy.

tention, and the consequent disturbance of the functions of digestion, respiration, &c.[1]

The fear of adhesions, or other future contingency, does not render an operation safe or expedient, as has been often urged; for those contingencies may never arise.

If any operation is contemplated, the above period (i.e., that in which serious constitutional disturbance begins to show itself) should be selected; farther delay diminishing the chances of a favorable result, by the progressive loss of health and strength, and the liability to repeated attacks of subacute inflammation of the cyst, and the formation of adhesions.

It is neither safe nor expedient to operate, if there be any signs of a malignant diathesis.

The safety of the operation is greatly diminished by the co-existence of uterine or other visceral disease; and hence it is neither safe nor expedient to operate until every known method of diagnosis has been exhausted, — as the touch, the use of the uterine sound, auscultation, percussion, &c.; after which, no case, no matter how positive apparently the diagnosis may be, should be operated upon until after previous *tapping*, that every certainty, short of actual sight, may be possessed.

This preliminary tapping should be followed by moderate pressure, in the hope of checking the refilling of the cyst, as such favorable results have occasionally followed; and the patient is in no worse condition for ulterior measures, even should the tapping prove useless.

If, after the removal of the characteristic fluid, it again accumulates, no "bold incisions" are justifiable until the smallest possible exploratory incision has shown that no adhesions exist, so far as this can be ascertained by the introduction of a finger or probe.

[1] Section XIII. shows, that, in the majority of the operations, the mortality is small, in comparison, when the disease has existed at least three or four years; which is probably not far from the period in which these constitutional symptoms would begin to show themselves, in a fair average of cases.

Under the above conditions alone do we think that Ovariotomy can be considered both safe and expedient. But the farther question now presents itself, Is not this operation expedient, even though it may be less safe, in many of the remaining cases?

The answer to this depends entirely upon how far it is justifiable for a surgeon to assume the risk of cutting short a life, which, at any rate, must terminate in a few weeks or months at most, in the very uncertain hope of prolonging it by operation. This is a question of medical ethics which each individual conscience must answer for itself, and upon which an honest difference of opinion may, and in fact does, exist. If, however, we take as our guide the surgical practice in many malignant diseases, — the treatment, by amputation, of inveterate cases of necrosis, articular disease, &c., the operations of embryotomy, or Cæsarian section, — we should say, without hesitation, that very many of the more desperate cases of ovarian tumor were legitimate subjects for operation. Has the surgeon a right to say to one, who, with death staring her in the face, urgently demands, as her last hope of life, such relief as his art may perchance afford, "I dare not assume the responsibility"?

We think, then, that, if the facts are as stated in the foregoing paper, the following conclusions are deducible from them: —

1. The mortality attendant upon Ovariotomy is no greater than it is after other capital operations.

2. The mortality resulting from extensive incisions of the peritoneum is generally over-estimated.

3. Fully developed cystic disease of the ovarium tends rapidly to a fatal result.

4. No method of treatment heretofore devised for it is so successful as extirpation; excepting, possibly, that by injection with iodine, of the results from which, we have, as yet, insufficient statistics.

5. The operation is unjustifiable in the early stages of the disease.

6. After active development has commenced, with the supervention of constitutional symptoms, the sooner the operation is performed, the greater the chance of recovery.

7. No rule can be laid down as to the length of the incision, other than the general one, — that, the shorter it is, the less the mortality; and that, therefore, the primary incision should always be small, and extended afterwards as may be necessary, according to the exigencies of each particular case.

8. If, after the operation is commenced, extensive adhesions should be discovered, either the complete abandonment of the intended extirpation, or the attempt to cause suppuration, and gradual contraction of the cyst, by means of a permanent external opening, are to be preferred to the division of the adhesions, and completion of the operation as originally designed.

Although, from the statistics given, the conclusion has been formed, that, under given conditions, extirpation is the safest remedy which can be used for the radical cure of encysted ovarian tumors, it must be confessed that many elements to an entirely satisfactory decision are still wanting, — such as the natural history of the disease, uninfluenced by surgical treatment of any kind, and the results of tapping and spontaneous rupture, as shown by a larger number of cases than have yet been collected. As a contribution to this end, it was originally intended to append, in addition to the following section upon diagnosis, a table of some fifty cases each of tapping and spontaneous rupture, together with a considerable number of cases resulting fatally, in which no surgical treatment was adopted: but other avocations have delayed the fulfilment of this design; and, as they are not called for by the question proposed, the idea is, for the present at least, abandoned, and this portion of the Essay concluded in the words of Mr. Walne,[1] who, after recommending that the operation be undertaken only in well-selected cases, says, "Still less let me be supposed to advise that any sur-

[1] See Ashwell on Dis. of Women, p. 666.

geon should engage in its performance who has not, by habits of operating, — yet more by long habits of careful observation and treatment of disease generally, and by very considerate and studious examination of the nature and connections of this particular disease, and the tendencies of the viscera, which may be involved in mischief by an ill-judged operation, or ill conducted after treatment, — qualified himself to cope with difficulties from which it is unreasonable to expect an exemption." Words of sound judgment, which are commended to the careful consideration of that numerous class of individuals who look upon Ovariotomy as a very simple operation, requiring no particular surgical skill.

DIAGNOSIS OF OVARIAN TUMORS.

It would seem, to one whose attention had not been particularly directed to this subject, an easy matter to avoid grave errors in the diagnosis of such cases. But the preceding paper gives abundant proof that such errors have been made, and that, too, not by inexperienced persons only; but that the abdomen has been freely opened by distinguished surgeons, — men in the habit of operating, and fully aware of their responsibilities, — who, to their dismay, have found either an entirely different disease, or no disease at all, — "only flatulence and fat." Mr. Liston may well be pardoned for characterizing all such proceedings as "belly-ripping."

Beside the cases above mentioned, it may be useful to cite here a few additional illustrations of the difficulties of diagnosis; proving, not only that other tumors may be mistaken for ovarian, but also that ovarian disease is sometimes mistaken for something else.

Dr. Francis[1] reports the case of a woman, age thirty-six, with two children, and who supposed herself to be pregnant.

[1] New-York Med. and Phys. Jour. vol. ii. 1823.

Her attendant pronounced it extra-uterine fœtation; and, at the end of nine months, an incision was made, "several inches in length," between the umbilicus and the right anterior iliac spinous process. No child was found, but ovarian cysts, discharging a thick, whitish fluid, several pints of which were removed. After much constitutional irritation, she recovered. In a few months, the sacs refilled, were tapped by Dr. Mott, and two gallons drawn, of the color and consistence of thin glue; died in two weeks; autopsy, — multilocular disease of right ovary, and some sarcomatous tumors, weighing, in all, thirty pounds.

Boinet[1] gives an account of a remarkable tumor, which the best surgeons were unable to decide upon. A consultation was held of Roux, Blaudin, Robert, Montaine of Lyons, Recamier, Jobert, Martin-Solon, and others. Opinions were divided between pregnancy, extra-uterine pregnancy, encysted ovary, fecal accumulation, "épanchement sanguine," collection of blood in uterus, &c. She was under observation eight months, in the Hospitals Hôtel Dieu, Beaujon, and St. Louis; the tumor eventually disappearing after an attack of diarrhœa.

Mr. Chalice[2] reports the case of a young woman supposed to be six months pregnant, and who confessed to a single connection six months previously. The usual signs were considered to be sufficiently well marked, with the exception of the irregular continuance of the menses. Exactly at the end of the nine months, she and all concerned thought that she was in labor. The pains continued for a week before an error was suspected; was tapped three times before death. An examination revealed encysted malignant disease, both ovaries having disappeared.

Dr. Shattuck[3] reports a case of ligature of uterine polypus. Death ensuing in three weeks, an inflamed ovarian cyst was

[1] Encyclo. des Sciences Méd. July, 1840, from Gaz. Médicale.
[2] Southern Med. and Surg. Jour. July, 1848, from London Lancet.
[3] Records Boston Soc. for Med. Improvement, vol. ii. p. 134.

found, extending from the pubes to the ensiform cartilage. It had given no signs of its presence during life, the slight abdominal swelling being attributed to effusion from peritonitis.

Mr. Harvey [1] relates a case of hydatid disease of the liver, which was considered, during life, to be ovarian; and Mr. Shearley also relates a similar case, in which, however, the patient was tapped, and had a plug inserted into the wound. The plug could not be removed, and she died.

Druitt [2] gives a case in which pregnancy was diagnosticated, the sounds of the fetal heart being apparently audible. It proved to be ovarian dropsy.

Dr. Robert Lee [3] relates a case in which a woman had had the rectum divided by incision for supposed stricture. After death, an ovarian cyst was found between the uterus and rectum. He gives several cases of mistaken diagnosis.[4] Were it advisable, this list might be much extended: a few will be mentioned hereafter.

Without entering into the pathology of dropsy of the ovary, it is sufficient for our present purpose to allude to the fact that it varies very much, in its anatomical characters, from the simple serous vesicle, or cyst, rarely rising above the pelvic brim to the solid fibrous growths with cysts attached, the scirrhous, encephaloid, or colloid disease, or the compound or multilocular tumors, growing to such an extent as to exceed in size the ordinary limits of the gravid uterus at full term. As might be inferred, the symptoms attending these different degrees vary accordingly; in some instances, being so trifling as to occasion no suspicion of a disease which post-mortem examination first reveals; and, in others, presenting an assemblage of painful and distressing symptoms, not exceeded, perhaps, in any morbid change to which the human organism is liable.

[1] Lancet, vol. i. 1849, p. 183.

[2] Lancet, vol. ii. 1849, p. 587.

[3] Ovarian and Uterine Dis. p. 29, case 9.

[4] See also McFarlane's cases, Med. Chir. Rev. July, 1835; Lassus, vol. i. p. 281; Hamilton, Med. Chir. Rev. July, 1836; Seymour, Lancet, vol. i. 1838–39, p. 214.

The age at which ovarian dropsy is most frequently developed is usually stated to be from twenty-five to thirty-five; in other words, that period of life in which the generative system is in its highest state of activity. Of two hundred and twenty-one cases,[1] the average was thirty-four years at the time of the operation. This, allowing four years for the previous duration of the disease (which is more than the tables warrant), would give us thirty years. The same section shows comparatively few after the age of fifty; while in six cases it commenced before sixteen, and one even as early as nine, if the account may be depended on. Frank's case began at thirteen, the patient living to eighty-eight.[2] Prof. Mayer found both ovaries converted into cysts in an infant, who died of convulsions when seventeen days old;[3] and Neumann met with the disease as early, in one instance, as eight years of age. Dr. Cox reports a similar case,[4] of a healthy nursing infant dying of convulsions, and in whom the ovaries were dropsical.

Of two hundred and nine cases,[5] one hundred and forty-two, or nearly sixty-eight per cent, were married; and, in the majority of cases, the patients are sterile. The common supposition, that the strumous diathesis favors the development of this disease, is doubtless well founded; but neither on this point nor on that of sterility are the reports sufficiently detailed to enable one to derive any positive conclusion from the cases I have collected.

The causes are very variable. It is oftentimes directly traceable to injuries received, as blows, falls, kicks, &c.; and, in a very considerable number of instances, it follows immediately upon parturition. If we may judge by the comparatively small number of prostitutes affected, over-excitement

[1] See Section XII. p. 111.

[2] Copland, Dict. art. Dropsy.

[3] L'Expérience, 1838, from Journal de Graefe, t. ix.

[4] Proceedings of New-York Path. Society, September, 1854, in New-York Jour. of Med.

[5] See Section XV. p. 112.

of the sexual organs would not appear to be a predisposing cause.

It may be stated as a rule, to which there are but rare exceptions, that, in the early stages of simple cystic disease of the ovary, general constitutional symptoms are entirely wanting, the health not being at all, or to but an inappreciable degree, impaired (an important fact in relation to the differential diagnosis); nor is it at all uncommon for the cyst to arrive at its extreme development with no other disturbance to the health than such as arises from physical causes, as impeded respiration, or interference with the urinary or digestive functions. In the greater number of cases, the disease is unnoticed until the appearance of the tumor above the brim of the pelvis; and this is more particularly true of the ordinary form of the affection. If solid or malignant, its interference with the functions of the pelvic viscera attracts earlier attention; many such cases being first recognized in consequence of the obstruction presented to the distention of the pregnant uterus, or to the descent of the child in labor.[1] When, however, the tumor, no longer confined to the pelvis, has attained such dimensions as to compress and displace the neighboring parts, the symptoms already alluded to, as dependent on these physical causes, become exceedingly distressing, and ultimately induce fatal exhaustion. Dyspnœa, often so great as to prevent rest in the recumbent posture; indigestion, in its most aggravated forms; hemorrhoids; prolapsus of the pelvic viscera; various disturbances of the renal function; and constipation,[2] — are the most prominent.

Before enumerating the principal signs or symptoms met with in ovarian disease, it is proper to state, that, as an indispensable preliminary to all examination, the physician should be well satisfied that the bladder and rectum have been emp-

[1] Mr. Hardy, Lancet, vol. i. 1845; also Med. Chir. Trans. vols. ii. iii. x. and xxiii. by Merriman, Lever, Park, and Chevalier.

[2] In one of Dr. Ingleby's cases, the pressure upon the bowels was so excessive, that the patient had but two alvine evacuations in three months! Lancet, vol. ii. 1839–40, p. 10.

tied. Many cases could be quoted in which greater attention to this point would have saved mortification to the examiner, and something worse, perhaps, to the patient.

If seen in the earlier stages, the position of the tumor is found, as it rises above the pelvic brim, to be at one or the other side of the mesial line. Dr. Bird[1] attaches little importance to this rule; stating even, that, in the greater number of cases which he had seen, it was described as having begun in the middle of the hypogastric region. But the reports of patients are not always reliable; and this is but an additional proof of what has been already stated; i.e., that the disease may have made considerable progress before its discovery, the tumor gradually assuming a more central position as it rises above the level of the fundus uteri. Blundell[2] considers this lateral position as "a great characteristic of the disease." Ramsbotham[3] also lays stress on this, as "one of the best diagnostic marks." Dr. Bright[4] gives a similar opinion; and such is the general expression of the best authorities. The tumor, oval in shape, is generally prominent, movable, and circumscribed both visibly and to the touch. Often, even after it has made considerable encroachment on the abdominal cavity, it retains, to a certain degree, its lateral position. If fluctuating, the fluctuation is confined to the tumor itself, not being perceived in other portions of the abdominal cavity. After the tumor has reached the umbilicus, its superior outline is more or less defined by the movements of inspiration and expiration; a marked sulcus sometimes existing below the epigastrium.

Another point of the highest importance in its bearing upon diagnosis, as will be more apparent hereafter, is the position antero-posteriorly with reference to the abdominal viscera, which these tumors assume when free from the pel-

[1] Lancet, vol. i. 1843–44; and vol. ii. 1846.
[2] Principles and Practice of Med. p. 816.
[3] Lond. Med. Gaz. vol. xvi. p. 645.
[4] Guy's Hospital Reports, April, 1838, p. 184.

vis. This position is next to the anterior parietes of the abdomen, as proved by percussion, which gives here a dull sound, the intestines being crowded back and to the sides. The diagnostic value of this fact was first shown by Rostan. In this connection, however, the possibility of complication with a distended or adherent uterus is not to be overlooked.

In a certain number of cases, hemorrhoids, arising from pressure upon the abdominal venous circulation, will be noticed. Flatulent distention is another effect often present from the same cause. Anasarca is not usual in ordinary ovarian dropsy. When existing, it is commonly confined to one extremity, and indicates that the pelvic portion of the tumor, at least, is of a solid character. The subcutaneous abdominal veins are generally much enlarged, and more so in proportion to the size of the tumor.

The catamenia usually continue,[1] with more or less of regularity, unless both ovaries are diseased; and even then, except they be entirely disorganized, this function may continue.[2] It is perhaps worthy of notice here, that, in certain cases in which the menses are either irregular or entirely suppressed, this function is restored to its normal condition after removal of the disease by Ovariotomy.[3]

The mammary sympathies are sometimes evidenced by swelling and tenderness of the breasts; and instances are given in which milk is said to have been secreted, though such cases are doubtless rare.[4]

Having noticed these general characteristics, we may now refer to the other means of information upon which the differential diagnosis must greatly depend, — as percussion, &c.

[1] Section XIV. of Analysis, — fifty-four cases out of sixty-two.

[2] Dr. A. T. Thompson and Mr. Potter each reports cases of this kind. Lond. Med. Gaz. vol. xxxvii. p. 483; and vol. xli.

[3] See Section XIV. p. 112.

[4] Ramsbotham, Lond. Med. Gaz. vol. xvi. p. 645; Vater, L'Expérience, February, 1838, p. 97; Jeaffreson, Lond. Med. Gaz. vol. xxxiv. p. 645. The patient thought herself to be eight months pregnant. It was a case of ascites, though both ovaries proved to be diseased.

The development of the cyst being anterior to the viscera, it is obvious that percussion must give a dull sound over all that space occupied by the tumor. The intestines being crowded backward and upward, the resonance, if any there be, will of course be found to correspond to this displacement. Cruvulhier[1] says, that in no possible case, and in no degree, can the tympanitic sound be heard anterior to the ovarian cyst. This statement is often repeated; but, though in the vast majority of cases true, it needs qualification. It is, for instance, no uncommon thing for ascites to co-exist, or for the intestines to be so bound down, by adhesions from chronic peritonitis or other causes, as to hinder their rising and floating upon the surface. In other cases, a transverse layer of intestine has been found firmly adherent to the front of the tumor,[2] which, if distended with air, would give resonance. The umbilical region may also be resonant from the gaseous distention of a degenerated cyst, adherent to the parietes anteriorly.[3]

By percussion and palpation, a sense of fluctuation is ordinarily recognizable in the circumscribed tumor. This, of course, is more evident in unilocular cysts, containing a thin fluid, and when the patient is in the erect position. It is limited to the tumor itself, not extending to the lateral regions. It varies much in degree, according to the thinness of the fluid and its containing wall, and is often confined to particular portions of the tumor, as in multilocular or semi-solid growths.

Farther information may be derived from percussion by changing the position of the patient during examination; for it will be found, that, unlike ascites, the same region remains dull, whether she be prone or supine, upon one or the other side, standing, sitting, or reclining.

[1] Dr. Kilgours's paper, in Lond. and Edin. Monthly Jour. of Med. Sciences, vol. iii. 1843, p. 527.

[2] Pp. 77–9, Mussey's and Norman's cases, Nos. 222, 231.

[3] Watson, Practice of Physic, vol. ii. p. 365; Bright, Guy's Hospital Reports, April, 1838, p. 235.

Auscultation may be of great importance negatively, particularly when doubts exist as to pregnancy, but, taken alone, is of little positive value. A distinct placental souffle, and the sounds of the fœtal heart, doubtless indicate pregnancy: but the absence of these is by no means conclusive; for the fœtus may be dead. Instances are given in which the placental souffle was imitated by pressure of the growth upon the abdominal vessels, or by the circulation of the large vessels occasionally found ramifying over an ovarian cyst.

Dr. Atlee[1] attaches importance to the pulsations of the tumor itself, and the aortic impulse, as being more apparent in solid or encysted growths than in cases of ascites.

By vaginal or rectal examination, fluctuation is sometimes discoverable on percussion of the parietes; and this is more particularly the case in the earlier stages, the tumor being in the recto-vaginal cul de sac. Unlike acute ovaritis or pelvic abscess, pressure here causes no pain. It may indeed be possible, by this vaginal examination, to isolate the tumor entirely from the uterus.[2] The cervix uteri is found to be elevated, possibly beyond the reach of the finger; or, if attainable, it is pushed aside, or otherwise displaced before or behind, and unchanged in length, while the os retains its normal appearance as to size and shape. Exceptional cases are met with, where there is prolapsus of the uterus, bladder, or vagina: but, in such, it is to be presumed that the growth is solid, not cystic; and, unless the mass be wedged in the pelvis, the prolapsus occurs only in the later stages.

The uterine sound, likewise, will often be negatively serviceable at this stage of the examination, by proving that the disease is something else than ovarian.

Tapping, though strongly confirmatory or otherwise of the diagnosis, ought to be resorted to only in the later stages of ovarian disease, and when, after careful and repeated exa-

[1] Am. Jour. Med. Sciences, July, 1844, p. 64.

[2] Dr. Ashwell (loc. cit. p. 643) relates an instance in which disease of both ovaries was thus diagnosticated.

mination by other means, no reasonable doubt exists; for, as we have already seen (p. 7), it is by no means free from danger. It should, however, be considered as an indispensable preliminary to any operation for Ovariotomy. The information to be derived from it relates not only to the actual existence of ovarian disease, but also to the presence or absence of adhesions, and to the character of the cyst itself, whether simple or compound, &c. As the fluid escapes, the cyst, unless extremely thin or strongly adherent, may be felt slowly subsiding into the pelvis; and if nodulated, multilocular, or partly solid, these characters become gradually more evident to careful pressure in proportion as the bulk of the fluid is removed. The presence of an indurated mass remaining, after the withdrawal of ascitic fluid from the abdomen by tapping, may be simulated by a mass of adherent false membranes. Dr. Bright gives a case of this kind,[1] in which the patient was tapped fourteen times; and, in each instance, the fluid was supposed to be from an encysted ovary.

The mere fact again, that no fluid escapes through the canula after puncture, is no proof of the absence of cystic or other enlargement of the ovary: for it may either be a solid, fibrous, or malignant growth; or, if cystic, with contents so gelatinous as not to flow readily, even through a much larger incision.[2]

When fluid is obtained, it differs from the serum of ascites, this being usually clear, though occasionally tinged with blood or bile; while the liquid from an ovarian cyst is albuminous, containing, possibly, cholesterine. It is now well known that the contents of the different cysts of a multilocular tumor may be entirely unlike; but, as a general rule, it is safe to assert, that, the more albuminous the fluid, the greater the probability of its being encysted. Dr. Hamilton[3] considers the appearance of

[1] Med. Chir. Trans. vol. xix. p. 200.
[2] Houston's case, p. 11.
[3] Med. Chir. Rev. July, 1836.

the fluid very decisive as between ovarian dropsy and ascites; the former "being amber-colored, and of the consistence of calves'-foot jelly." This, however, cannot always be relied upon; for, in undoubted cases of ovarian disease, the fluid is sometimes as thin and clear as that from the peritoneal cavity.[1] Microscopic examination of this fluid, it might be supposed, would throw some light upon the diagnosis; but, as yet, such experiments have led to no decisive conclusion, which, unsupported by other evidence, would be sufficient to base a positive opinion upon.

The presence of the peculiar albumino-cerous matter, described by Dr. Bostock in the second, fourth, and fifteenth volumes of the "Medico-Chir. Trans.," is of little practical diagnostic value, it not being peculiar to ovarian cysts.

Such, then, are the general symptoms and signs of dropsy of the ovary. None of them can be relied upon as positively pathognomonic. Let us, therefore, refer to those diseases or abdominal enlargements which simulate, more or less, ovarian disease, and *vice versâ*, and compare their symptoms. They may be enumerated as follows, somewhat in the order of their importance: —

Pregnancy.

Ascites.

Fibrous tumors of uterus.

Enlargements of kidney, liver, or spleen, and omental tumors.

Hydatid disease of the peritoneum.

Spinal curvature. }
Psoas abscess. }

Hysterical tympanitis. }
Fecal accumulation. }

Retroversion or retroflexion of the uterus. }
Hydrometra. }

Distention of bladder by retained urine.

[1] Atlee's case, Am. Jour. Med. Sciences, July, 1844.

Recto-vaginal hernia, or prolapsus of the ovary.
Pelvic abscess.
Muscular contraction of the abdominal parietes.

Pregnancy. — While the ovarian disease remains confined to the pelvis, or during its earlier stages, it may readily be mistaken for pregnancy, owing to the similarity in certain of the symptoms, — such as disturbance of the vesical functions, occasional suppression of the menses, the existence of gastric and mammary sympathies, &c. The following distinctions, however, may be recognized: In the first months of pregnancy, the os is situated lower in the vagina, and patulous; the cervix shortened; and the umbilicus more sunken than natural. In ovarian disease, the os is elevated (with the exceptions mentioned on page 106), not patulous or softened; the cervix of its natural length, the umbilicus retaining its normal appearance; and fluctuation from the cyst may sometimes be recognized by the finger through the posterior vaginal wall. At a later period, the pregnant uterus appears above the pubes, in the mesial line. Ovarian enlargement, on the contrary, with rare exceptions, first shows itself in either groin. The movement from side to side, of an ovarian tumor, is not so appreciable (if at all so) to the finger applied to the os uteri, as would be the case in a similar experiment upon the distended womb; while this latter yields no circumscribed fluctuation, unless in the rare instances in which it might be due to dropsy of the amnion. The development of pregnancy is gradual, steady, uniform, and regularly traceable from month to month, — points in which a difference could hardly fail to be observed in the more irregular development of cystic disease. The characteristic sensation of ballottement, recognizable in pregnancy, is wanting in ovarian disease. The sounds of the fœtal heart and the placental souffle, usually so decisive of the former, though sometimes simulated by ovarian tumors, would hardly be, both of them, audible at the same time in any given case. In pregnancy,

there is no distention of the subcutaneous veins; and, in ovarian disease, the fœtal movements are wanting; though the somewhat similar sensations now and then caused by flatulence, and the pulsations of the aorta, may require discrimination.

Pregnancy, it is true, may exist, and neither fœtal movement, the placental or cardiac sounds, be recognized, as in the case of a dead fœtus; but this is rarely retained a sufficient length of time to lead into any practical error. In addition to this, the catamenia are wanting; while, in ovarian disease, they are more frequently present than absent.

Pregnancy may supervene upon ovarian disease. Many cases which I have given presented this complication; and others of a similar kind are related by authors.[1] In such an event, besides the ordinary signs of pregnancy, it may be possible to recognize, and isolate from each other, the two tumors. Either abortion, or spontaneous rupture of the cyst, would be likely to occur if the cyst were large. One practical deduction may be drawn from these facts; i.e., that, where there is absence of the catamenia in any case of supposed ovarian disease, nine months, at least, should be allowed to elapse before serious thoughts are entertained of Ovariotomy.

Between an ovarian tumor and extra-uterine pregnancy, the diagnosis is more difficult. In such a case, besides the usual signs of pregnancy, the sympathetic accidents, as pain, &c., arising from the development of the fœtus in its unnatural position, would be our only dependence.

Ascites. — Distention of the abdomen from peritoneal effusion is usually traceable to some cardiac, hepatic, renal, or other organic disease. There is, therefore, in the earlier stages, a corresponding impairment of health. In dropsy of the ovary, the patient, for a long time, retains her usual condition. In the former disease, an anasarcous condition of

[1] Douglass's Philosophical Trans. vol. xxv. 1707, twice pregnant; Tunaley, Lancet, vol. ii. 1853, p. 612; Montgomery, "Signs of Pregnancy," p. 191, in which both ovaries were diseased.

both lower extremities is a common symptom; in the latter, it is rarely present, and, if so, is quite likely to be confined to one limb. In ascites, the secretions of the kidneys, particularly, are diminished; while, in ovarian disease, they remain unaffected, at least until great pressure is caused by the increasing growth. In ascites, the neck of the uterus, though sometimes retracted or even obliterated, is not displaced from its axis; and vaginal examination reveals no tumor in the pelvic cavity (but the neck is often obliterated, and the os retracted like an umbilicus), both the cervical displacement and the abdominal growth being recognizable not uncommonly in ovarian disease. In ascites, when the patient lies down, a change of shape, a decided subsidence or flattening, is noticed in the abdominal protuberance, the fluid gravitating with every change of position: it is also more generally and equably diffused and fluctuating from the beginning, and presents a more uniform surface than an ovarian tumor; which latter is more circumscribed, unequally prominent and movable, generally presenting a well-defined ovoid tumor, which retains its form in all positions, and fluctuates only over a limited space, the fluctuation being less decided, and not so apparent from one lumbar region to the other, as in the former. In ascites, as the intestines are in part floating on the surface of the fluid, we find, on percussion, a distinct resonance, which remains uppermost, with corresponding dulness below, in placing the patient in different positions; while, in ovarian dropsy, the dulness is confined to the anterior umbilical or pubic surface, whatever changes of position are made.

If both diseases co-exist, in addition to the signs above enumerated, the tumor may sometimes, it is said by Boivin, Duges, and others, be recognized, through the ascitic fluid, by the points of the fingers pressing firmly down upon the anterior surface. The difficulty of accomplishing this increases, of course, in proportion to the size of the cyst; and, if there be great distention, it may be impossible to displace the fluid sufficiently to feel any tumor beneath. In such a

case, however, tapping would be equally proper in both diseases; and this would probably solve the mystery, either by the character of the fluid, or the recognition of a resulting tumor formed by the collapsed cyst, if cyst there be.

Fibrous tumors of the uterus. — Between these and ovarian disease, the diagnosis is often exceedingly difficult. Their lateral position; occasional fluctuation, or elasticity resembling it; the trifling disturbance of the general health and functions of the surrounding viscera, — may all be sources of error.

Excessive menorrhagia would point rather to fibrous disease of the uterus than to ovarian. Mr. Brown (loc. cit.) says that there is neither elasticity nor fluctuation in solid uterine tumors; but this is incorrect. In Parkman's case,[1] the elasticity so closely resembled fluctuation as to deceive all who observed it. She was tapped, by a distinguished surgeon in the country, on the supposition of encysted disease, and again in the hospital here, with negative results, of course; and, even after removal, the mass, before being incised, was so decidedly fluctuating (I speak from personal observation of it), that few, who were strangers to its history, would have doubted its containing fluid. The most reliable information, in doubtful cases, is that afforded by the uterine sound. In fibrous disease, the uterine cavity is elongated or stretched, varying from its normal axis, and the morbid mass moves with the movements of the sound; none of which conditions obtain in ovarian disease. According to Dr. Simpson, if this instrument shows the tumor to be placed anterior to the plane of the uterus, it certainly is not ovarian, the ovary lying posterior to that plane. By means of the sound, it also becomes possible to fix the organ during examination; and, if fibrous disease of the uterus and encysted ovary co-exist, we are enabled to isolate them so as to recognize the two tumors. The whole paper[2] deserves careful study; and the recent American edition renders it of easy access to all interested.

[1] Synopsis, No. 239; see also Peaslee, No. 236.

[2] Obstetric Works, Edin. vol. i. p. 57.

Enlargements of the kidney,[1] liver, spleen, and omental tumors, or the development of cysts or tumors therefrom, or from between the peritoneum and abdominal parietes, may be mistaken for ovarian disease, and *vice versâ*.

The situation of the tumor in its commencement, and the direction of its growth, is an important element in this diagnosis, and, if seen sufficiently early, may be quite decisive as to its not being ovarian, by showing a distinct sulcus between them and the pubes, unoccupied by any swelling.

The specific constitutional symptoms belonging to diseased kidney, liver, or spleen, would be wanting in ovarian disease. This latter develops from below upward; while any affection of the liver, which could simulate it, would be seen to develop "downward, and to the left." Enlargement of the spleen grows obliquely downward, "beginning from the left, and overreaching inferiorly towards the right."[2] In enlargement of the spleen, the bulk of the tumor, in its earlier stages, is felt under and behind the ribs, extending into the lumbar region, with its lower edge sometimes serrated or notched. Dr. Bright (loc. cit.) says, "Of all the errors made in the diagnosis of kidney disease, the most frequent has been to consider the enlarged kidney as an ovarian or uterine tumor;" though he had never met with the converse error. A close attention to the condition of the urinary functions, as

[1] Dr. Bright (Guy's Hospital Reports, April, 1839, p. 212) mentions a case of ovarian tumor, which, during life, was supposed to belong to the liver, together with many cases illustrative of the difficulty of deciding between ovarian and renal tumors.

Many years since, I was consulted by an old lady, nearly eighty, with reference to an inguinal tumor, apparently emerging from the pelvis, circumscribed and fluctuating, which, but for the presence of certain renal symptoms, or in a younger patient, might easily have been mistaken for an ovarian cyst. Examination, post mortem, showed the left kidney converted into one large cyst, and extending to the pelvic brim.

Mr. Greenhalgh (Lancet, vol. ii. 1853, p. 612) relates a case of cerebriform disease of the kidney, weighing twenty-seven pounds, which was pronounced during life, by gentlemen skilled in the diagnosis of abdominal tumors, "to be ovarian, and fit for removal."

See also Synopsis, 238, Prince's case of pediculated tumor of the spleen.

[2] Ramsbotham; Ashwell, Dis. of Women, p. 646.

compared with ovarian disease, should rectify any such error; while resonance on percussion, proceeding from the overlapping intestines, would be additional proof of the enlargement not being ovarian. Tumors of the omentum, besides their original position and the direction of their growth, are generally more knotted; hard, transverse ridges often being felt beneath the parietes. They are also more painful than ovarian tumors, and more likely to be accompanied by ascites.[1] The diagnosis between ovarian and parietal cysts can only be derived from the circumscribed position of the latter, their limited movability, and the absence of the symptoms of the former as obtained by vaginal examination.

Hydatid disease of the peritoneal cavity has been mistaken for ovarian disease.[2] In these cases, the uniform development; the absence of any peculiar prominence or circumscribed tumor; the character of the fluctuation, which, in Mr. Clay's case, was "more ascitic than cystic;" the implication of some of the abdominal viscera, as evidenced by their constitutional symptoms, — are all of them conditions which should lead to suspicion that the disease is not ovarian at least. In such cases, also, we might expect to find, unlike ovarian enlargements, the peculiar "frémissement hydatique" described by M. Piorry.

Spinal curvature and *psoas abscess* have both been mistaken for ovarian dropsy;[3] but percussion, touch *per vaginam*, and careful examination of the spine, present a ready means for the detection of such errors. The case of psoas abscess alluded to by Mr. Bell was detected by vaginal examination. The tumor, which was full and fluctuating when the patient stood erect, lost its tension and fulness in the horizontal position. It will be noticed also, in lumbar abscess, that the leg is flexed instinctively, so as to relieve the painful pressure by relaxation of the psoas muscle.

[1] Macfarlane's cases, July, 1835, Med. Chir. Rev.

[2] See Synopsis, 106, Clay's case.

[3] Lancet, vol. xii. 1827, Mr. Bell's case; also Synopsis, No. 196, Lizar's case.

Hysterical tympanitis, and *fecal accumulations* in the colon, have both been the source of grave errors in the diagnosis of ovarian dropsy. The state of the umbilicus, "which, in such cases, is apt to be considerably sunk;"[1] the condition of the functions of the nervous system and digestive organs; and the results of percussion already described, — ought to lead to a correct discrimination between them and the disease in question. If doubt remains, however, the effect produced by a judicious use of purgatives and carminatives would probably be sufficient for its resolution.

Retroversion or retroflexion of the uterus, or *hydrometra*, may possibly be confounded with ovarian dropsy: but the slow growth and gradual development of the symptoms of the latter, and the absence of the specific and often painful symptoms of the former, which it is unnecessary to recapitulate here; above all, the use of the uterine sound, and examination *per vaginam*, — are sufficient for the prevention of such mistakes. In hydrometra, the uterus rarely extends much above the pubes, the menses are absent, and the os firmly closed.

Distention of the bladder by retained urine. — Mr. Brown (loc. cit.) reports an instance of this kind, caused by pressure upon the neck of the bladder by a retroverted uterus, which was mistaken for ovarian enlargement. If the caution heretofore given as to the employment of the catheter be heeded, such a mistake could not occur.

Prolapsus of the ovary into the recto-vaginal cul de sac, and *pelvic abscess*, are mentioned by authors as among the affections which have been mistaken for cystic disease of the ovary. But the acute pain caused by pressure through the vagina or rectum is not found in dropsical enlargements of the ovary; while the tenderness, heat, doughy elasticity or fluctuation, and constitutional symptoms, present in cases of pelvic abscess, together with its immediate antecedents, are sufficiently distinctive. Should a doubtful case arise, the

[1] Montgomery, Signs of Pregnancy, p. 94.

exploratory needle, as suggested by Prof. Simpson, would probably settle the question.

Muscular contraction of the abdominal walls, it has been asserted, may simulate ovarian disease; but it is hardly credible that the minute and protracted examination which any supposed ovarian tumor would elicit should fail in the detection of such an error. Such cases, too, we should expect to find accompanied by other hysterical symptoms, which would lead to suspicion of the true nature of the case.

Finally, it being satisfactorily ascertained, in any given case, that the morbid growth is ovarian, it becomes necessary farther to ascertain whether it is of a malignant nature or not, and also as to the existence of adhesions to the surrounding parts, before the question of the propriety of Ovariotomy can be decided.

The principal distinctions between malignant and non-malignant ovarian growths are as follow: In the former, the pain is severe, often from the beginning; rarely so in the latter. In the former, the growth is rapid,[1] often accompanied by ascites and anasarca; in the latter, usually slow, and rarely anasarcous. The former is accompanied, particularly after the earlier stages, by the cancerous cachexia, possibly by glandular swellings, or the development of unmistakable malignant disease elsewhere. Malignant growths also, as a general rule, are less fluctuating, and more likely to give evidence of adhesions. Dr. Blundell[2] thinks that a round, firm tumor, in the side of the upper pelvis, especially if tuberous, turns out to be scirrhous: but this is a very uncertain test; for many non-malignant tumors, fibrous or even multilocular, have a decidedly tuberous feel.

Dr. Walsh[3] says that it is not possible to point out any series of symptoms "whereby simple carcinomatous tumors may be invariably distinguished from other diseased enlarge-

[1] Lebert, des Maladies Cancéreuses, p. 322, says that the longest period which he has known a patient to survive was twenty months.

[2] Loc. cit. p. 812. [3] On Cancer, Am. ed. p. 315, *et seq.*

ments of these parts." He adds, that "fibrous tumors of the ovary may, when large, be distinguished from scirrhous by their size; from encephaloid by their hardness, inferior elasticity, smoother, non-lobulated surface, and uniform consistence;" "unilocular cysts are non-lobulated," and more fluctuating; "the obscure fluctuation of multilocular cysts resembling more the elastic doughiness of encephaloid;" and, finally, that a very rapid course of the disease furnishes one of the best proofs of encephaloid; which opinion is generally concurred in. It should be stated, however, that clear and decided fluctuation may generally be detected in certain portions of the multilocular variety, though it is not uniform over the whole surface.

Of all the causes of failure to remove the tumor, after the peritoneal section has been made, the existence of adhesions is by far the most prominent.[1] Of eighty-eight cases reported,[2] in which the operation was not completed, this result was due in sixty-eight to the discovery of adhesions; and of those cases in which the operation was completed, in spite of the adhesions, nearly forty-eight per cent were fatal.[3] The importance, therefore, of this part of the diagnosis needs no comment.

The fact of a patient's having been repeatedly tapped, or subject to occasional attacks of peritonitis, certainly renders the existence of adhesions more probable; but no positive indication can be drawn from these antecedents.[4]

[1] Dr. Seymour (Lancet, vol. i. 1838–39, p. 214) states, that, in ninety-nine cases out of a hundred, the tumor is adherent to the surrounding textures; but this, apparently, is an exaggeration.

[2] See p. 80, Section VII. [3] See Section VIII. p. 80.

[4] See p. 81, Section XI.; to which I will add the following: The Dublin Hosp. Gaz. of February, 1846, quoted by Am. Jour. Med. Sciences, July, 1846, contains a case by Dr. Kirkpatrick, which was tapped a hundred and twenty-eight times, each followed by symptoms of peritonitis. After death, the adhesions were found to be very slight, admitting of the easy removal of the tumor.

In London Med. Communications, vol. ii. p. 123, is a case by Mr. Ford, where, after each tapping, there was circumscribed inflammation about the puncture, though not causing adhesions, as proved post mortem.

In Am. Jour. Med. Sciences, April, 1844, is a similar case by Dr. Bissell, the tumor weighing ninety-three pounds!

In Med. Chir. Rev. vol. xv. 1831, p. 502, a case is reported, in which, after seve-

Freedom of motion in the tumor, though not altogether decisive, is indicative of the absence of adhesions. The movability is to be ascertained by relaxing the integuments, and, if possible, grasping them in the hand, and moving them about in various directions over the surface of the tumor, noting carefully the effect produced upon the latter. If non-adherent, the tumor may usually be freely moved from side to side beneath the integuments, unless it be so large as to cause great distention. Still many cases are reported, in which, notwithstanding these movements were apparently untrammelled,[1] long and firm bands of adhesion to the parietes were afterwards found. And, at most, it would only show their absence anteriorly; for the mass may be firmly adherent to the viscera posteriorly and laterally, without limiting its movements as observed in front. In fact, the most difficult and dangerous adhesions met with in Ovariotomy are those connected with the omentum and colon.

Another valuable sign, first indicated by Dr. Sibson,[2] is the effect produced by a full inspiration upon the position of the tumor; it moving, if non-adherent, in correspondence with the diaphragm, descending, or sliding down beneath the integuments, to the extent of an inch or more.

Unequal distention of the abdomen is sometimes supposed to be indicative of the existence of adhesions and solid matter; but if, as I have already stated, it be true that the tumor does not assume the mesial line until after its emergence from the pelvis, this supposition must apply only to those cases in which the tumor has obtained considerable development.

ral attacks of acute inflammation, the cyst was found almost gangrenous, but without the slightest adhesion.

Lancet, vol. i. 1844, p. 525, Atkinson's case, tapped seventy-eight times, and "perfectly unattached."

Philosophical Trans. vol. lxxiv. 1784, Martineau's famous case, tapped eighty times in twenty-five years, and thirteen hogsheads drawn, appears to have been non-adherent, the sac having been removed entire after death.

[1] See Synopsis, Nos. 159 and 242, cases of Dieffenbach and Page.

[2] Lancet, vol. ii. 1849.

Another and very important sign often met with is the feeling of crepitus, "resembling the crackling of new leather," and which, when present, is a pretty sure indication of adhesions. This sign, originally described by Dr. Bright, in a paper read to the Med. Chir. Soc. of London in 1835,[1] and since confirmed by many others, is "a peculiar sensation communicated to the touch, varying between the crepitation produced by emphysema and the sensation derived from bending new leather in the hand." In every case in which this was felt, he found adhesions after death. It is more marked in the earlier stages of the adhesive inflammation.

Where adhesions to the anterior abdominal parietes exist, auscultation will occasionally reveal a bruit de frottement.[2]

The effect produced upon an ovarian cyst, by tapping, sometimes affords valuable information. If non-adherent, the collapsed cyst may be felt subsiding gradually to the pelvis, possibly giving a decided inclination to the canula, as the parietal and cystic punctures lose their previous relation to each other; while, if adherent to the parietes, perceptible traction upon them would be noticed. Another effect ought also to be observed, though I have not seen it alluded to; and that is the results of percussion, before and after the removal of the fluid. If the cyst be non-adherent, the dull sound previously existing should be replaced by resonance as it contracts and subsides into the pelvic cavity. This, of course, would depend somewhat upon the thickness of the walls of the cyst; for, if very thin, it might be adherent over a large space without affecting the resonance when emptied, and *vice versâ*.

Mr. T. S. Lee[3] has proposed injecting the bladder with air, upon the supposition that its ascent would be impeded or otherwise, in proportion to the existence or non-existence of adhesions between the cyst and parietes; but it is not pro-

[1] See Transactions, vol. xix.; also Guy's Hosp. Reports, April, 1838, p. 215.

[2] Grisolle, Pathologie Interne, Paris, 1844, t. 2, p. 396.

[3] Tumors of the Uterus, p. 190.

bable that this could be safely performed to any satisfactory extent.

Dr. Marshall Hall[1] suggests, as a means of elucidating this point, the propriety of making a small puncture, through which a fine probe is to be introduced, and swept around the surface of the tumor.

I have thus endeavored to give a condensed summary of those signs upon which the diagnosis of ovarian tumors must depend. Many of the points here briefly alluded to would profitably admit of extensive amplification: but this would be inconsistent with the limited time and space allotted to me; and it is believed that all of the most important have been sufficiently dwelt upon for the purposes of this Essay.

It is a remark commonly met with, that no farther improvement need be looked for in the diagnosis of ovarian tumors; but it is hardly credible that the resources derivable from chemistry and the microscope are yet exhausted. In this direction, if in no other, there is still ample room for more minute researches, from which a greater degree of perfection may be confidently anticipated.

[1] Lancet, vol. i. 1843–4, p. 787.

ERRATA.

Page 4, line 16 from top, for "schirrous" read "scirrhus."
,, 10, line 2 from bottom, for "results" read "result."
,, 19, line 8 from bottom, and elsewhere, for "symphisis" read "symphysis."
,, 25, line 2 from bottom, for "symptomes légères" read "symptômes légers"
,, 26, line 3 from top, for laudanisées" read "laudanisés."
,, 84, line 15 from top, for "diagnosed" read "diagnosticated."
,, 125, line 14 from top, for "Blaudin" read "Blandin."
,, 125, line 17 from top, for "sanguine" read sanguin."